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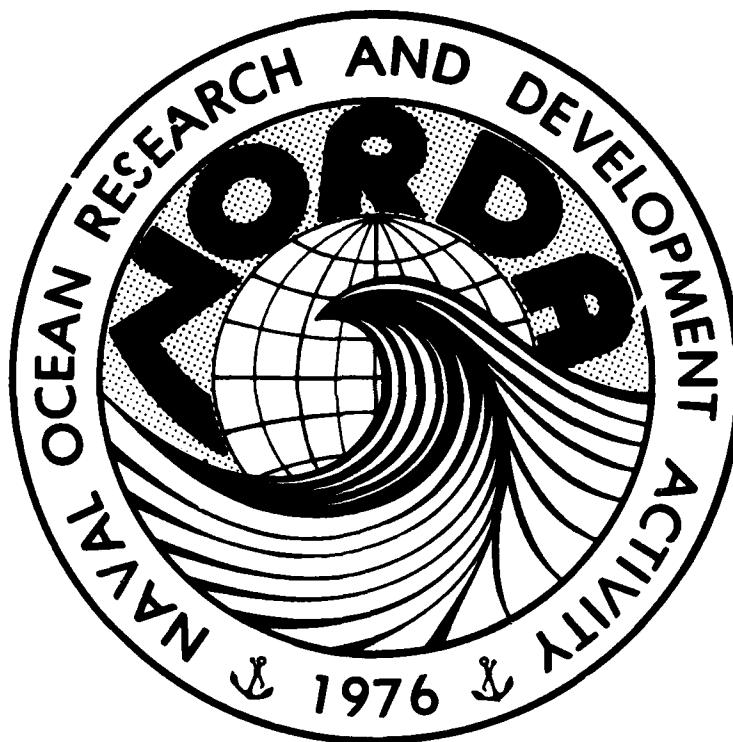


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Optical Measurements with Related Chemical, Biological, and Physical Parameters from the Central Equatorial Pacific Ocean

NOAA Ship *Discoverer* Cruise RP-9-DI-84



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September 1986

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ABSTRACT

This technical note is a summary of data collected by the optical oceanography program of the Naval Ocean Research and Development Activity (NORDA) on a north-south transect of the central equatorial Pacific Ocean. Data were collected from 14 stations from the surface to a depth of 2900 meters. Parameters presented here include conductivity, temperature, salinity, transmissometry, fluorometry, chlorophyll and phaeopigments, total suspended matter, particle size and nutrients (phosphate, silicate, nitrate, and nitrite). Data are reported as vertical profiles (to 250 m), temperature-salinity plots, and tables of measured and derived values. Collection and analytical procedures are also described.

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ACKNOWLEDGMENTS

The authors wish to acknowledge the Optical Oceanography Group at Oregon State University for their contribution to this report (Appendix B). Mr. David Menzies participated in the cruise collecting the optical data. Their report was prepared by Dr. Hasong Pak, Mr. Menzies, and Mr. James Kitchen.

Thanks are due to Dr. Richard A. Feely for the invitation to be a part of this cruise and for his sharing of data. We also thank Captain Robert Ganse and the crew of NOAA SHIP DISCOVERER for providing us with a most workable platform and professional support. The programming assistance of Dr. Denis Wiesenburg and the patient word processing of Ms. Bridget Smith and Ms. Kris Hayley during compilation of the data are greatly appreciated. This work was funded by the Naval Ocean Research and Development Activity under Program Element 61153N, Dr. Herbert C. Eppert, Jr. program manager.

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OPTICAL MEASUREMENTS WITH RELATED
CHEMICAL, BIOLOGICAL, AND PHYSICAL PARAMETERS
FROM THE CENTRAL EQUATORIAL PACIFIC OCEAN

NOAA SHIP DISCOVERER, CRUISE RP-9-DI-84
27 FEBRUARY-09 MARCH 1984

INTRODUCTION

This technical note presents data obtained as part of the optical oceanography program conducted by the Naval Ocean Research and Development Program (NORDA). During February and March of 1984, two scientists from NORDA's Biological and Chemical Oceanography Branch of the Oceanography Division took part in a field mission to obtain optical data on a transect from Honolulu, Hawaii to Papeete, Tahiti. Our participation was on Leg II of a major National Oceanic and Atmospheric Administration (NOAA) four-part mission coordinated by Pacific Marine Environmental Laboratory (PMEL) to study CO₂ dynamics in the equatorial Pacific Ocean. NORDA's optics data collection was complemented by cooperation with Oregon State University's (OSU) optical oceanography group. Their presence on the cruise was co-sponsored by NORDA's Ocean Measurements Program.

During this cruise, measurements (vertical profiles) of conductivity, temperature, depth, chlorophyll fluorescence, percent transmission, and spectral K-d (diffuse attenuation coefficient) were made. Samples were also collected for gravimetric analysis of total suspended matter (TSM), and for image analysis of suspended particulate matter.

Appendix A includes vertical profiles of the chemical casts showing temperature, salinity, sigma-t and an optical parameter (either beam attenuation or fluorometry) plotted against depth. Temperature-salinity (t-s) plots are also presented. Appendix A also includes data tables of parameters sampled at discrete depths. Comprehensive CTD data listings in 1-m increments to 500 m and then in 2-m increments deeper than 500 m have been made. These include tables of observed and derived values such as potential temperature, sigma theta, specific volume anomaly, and dynamic height. They are too cumbersome to be included in this report, but are available from the first author at NORDA.

Appendix B, a technical report of the optical group from OSU, consists of a description of their optical system, tabulated station data, and CTD profiles from their casts, as well as profiles of total diffuse attenuation, fluorescence and irradiance.

SYNOPSIS OF CRUISE

The primary purpose of Cruise RP-9-DI-84 on NOAA Ship DISCOVERER, was to conduct the CO₂-Acid Rain Dynamics Experiment. Leg II began in Honolulu, Hawaii, on 27 February 1984. Fourteen stations were occupied on a transect between 15.0°N and 15.0°S at 150.0°W (see Figure 1). DISCOVERER arrived in Papeete, Tahiti, at the completion of Leg II on 9 March 1984.

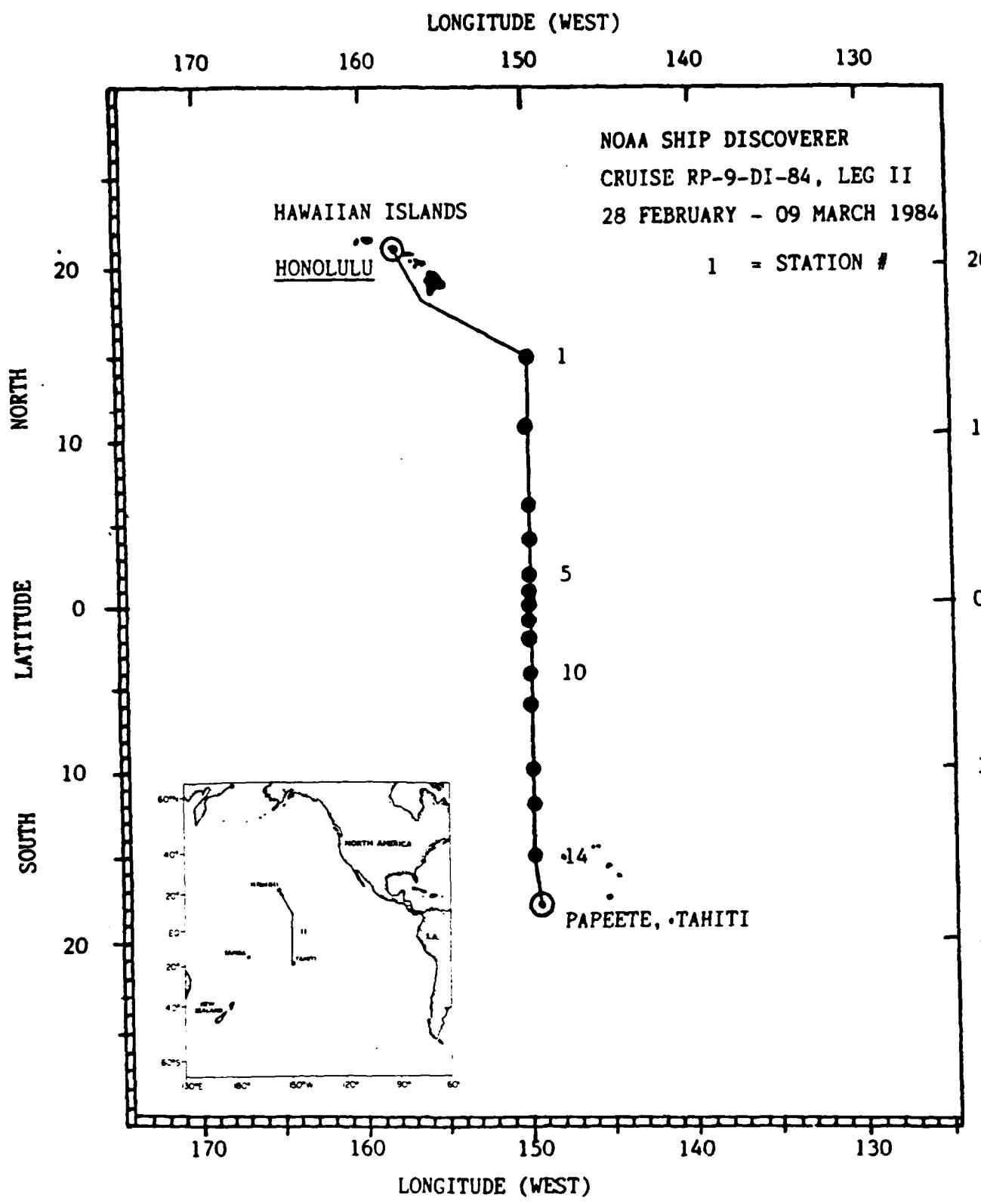


FIGURE 1: Cruise track and station locations.

NORDA's Neil Brown CTD and NOAA's large volume Rosette sampling system provided the main in situ data collection package for this leg of the cruise. A Guildline Autosal and computer interface (provided by NORDA) were used for on-board salinity determination. Several optical parameters were sampled by the NORDA-OSU group. These data are included in this report. Measurements made solely in support of the NOAA CO₂ Dynamics Experiment are merely listed and include geochemical parameters, bfrd and mammal counts, and velocity measurements.

Cruise participants are listed in Table 1, along with their affiliation and primary responsibility. A station cast summary is given in Table 2 and cast parameters relating to optics are summarized by Table 3.

STATION PROTOCOL

At stations one and two, separate casts were made for Freon sampling and deep geochemistry sampling with either Freon syringes or 30-liter bottles. On subsequent stations, deep geochemistry and Freon sampling were done on one cast. A separate cast for chlorophyll using 10-liter bottles on the Rosette usually preceded the chemical cast. At nine stations the OSU Spectral K-meter system was deployed as a separate cast. No water samples were collected with the K-meter cast. Bird and mammal counts were done underway and on several stations. Measurements of the velocity distribution were made with an Ametek-Straza Acoustic Doppler Current Profiler on a transect (N-S) before stations 2, 5, 7, 9, 11, and 12.

METHODS

1. Field Data Collection--chemical and chlorophyll casts

The sampling system for the chemical casts consisted of NORDA's Mark III CTD (conductivity/temperature/depth) Probe (Neil Brown Instruments, Cataumet, MA). This instrument, with an extra optical sensor channel, was mated to the NOAA large-volume Rosette sampler and mounted on a large frame with an in situ fluorometer (SeaMartek, Seattle, WA). The package also included 11 nonmetallic water samplers (Niskin bottles) which were tripped by the electronically controlled Rosette Sampler (frame, Niskin bottles, and Rosette Sampler by General Oceanics, Miami, FL) and a 100-cm transmissometer (Sea Tech Inc., Corvallis, OR). The modification of the CTD system with the extra data channel causes a 0-5 V DC analog signal from an external signal to be transmitted as part of the normal CTD data cycle. The optical sensor (fluorometer or transmissometer) was interfaced to the CTD system via this extra channel. Prior to the cruise, the CTD system was calibrated and operationally checked by the Sensor Calibration Laboratory of the U.S. Naval Oceanographic Office and certified to be operating within the manufacturer's specified accuracies. The conductivity calibration is based on the PSS78 Practical Salinity Scale.

On each chemical station, the CTD Rosette package was deployed on a dual conductor oceanographic cable electronically interfaced to the CTD readout/data logging system and the Rosette sampler. As the 2-m high, 900-pound package was lowered through the water column ("downcast"), the serial data transmissions from the CTD are recorded on the analog tape and also digitized in 0.5-1.0 decibar (dbar) averages and stored on digital tape. At a lowering

TABLE 1. PARTICIPANTS ON NOAA CRUISE RP-9-DI-84

<u>NAME</u>	<u>AFFILIATION</u>	<u>RESPONSIBILITY</u>
DePalma, Irene	NORDA ¹	Suspended particulates
Feely, Dr. Richard A.	NOAA/PMEL ²	Chief Scientist
Gendron, James	NOAA/PMEL	Tech. support/CO ₂ chem.
Gieselman, Terri	NOAA/PMEL	Tech. support/CO ₂ chem.
Hoppel, Dr. William A.	NRL ³	Atmospheric aerosols
Hoyt, Dr. Steven	Oregon Grad Cntr. ⁴	Halogen gases
Hoyt, Lisa	Oregon Grad Cntr. ⁴	Halogen gases
Kelly-Hansen, Steven	NOAA/PMEL	Tech. support/O2 meas.
Kelly-Hansen, Kim	NOAA/PMEL	Gas measurements (Freon)
Menzies, David	Oregon State Univ. ⁵	Optical profiles, Kd,
Nagamoto, Dr. Clarence	NOAA/ERL ⁶	Coulter Counter Atmospheric aerosols
Pitman, Dr. Robert L.	SW Fish. Cntr. ⁷	Marine bird/mammal studies
Pullen, Dr. Patricia E.	NOAA/PMEL	Ametek Straza Velocity Profiler
Reid, Dr. David F.	NORDA	CTD-Rosette casts, Autosal
Roberts, Marilyn	NOAA/PMEL	Tech. support/Ca chem.
Smith, Claudia	NOAA/PMEL	Tech. support
Stern, Jeffrey	Univ. of WA ⁸	Gas measurements (Freon)
Thayer, Victoria	Duke Marine Lab ⁹	Chlorophyll measurements
Waterman, Lee	NOAA/ERL ¹⁰	CO ₂ chemistry
Wisegarver, Dr. David	NOAA/PMEL	Gas measurements (Freon)

1. Naval Ocean Research and Development Activity, NSTL, MS 39529

2. Pacific Marine Environmental Laboratory, Seattle, WA 98105

3. Naval Research Laboratory, Washington, DC

4. Oregon Graduate Center, Eugene, OR 97403

5. Oregon State University, Corvallis, OR 97331

6. Environmental Research Laboratory, Boulder, CO 80303

7. Southwest Fisheries Center, La Jolla, CA 92038

8. University of Washington, Seattle, WA 92115

9. Duke Marine Laboratory, Beaufort, NC 28516

10. Environmental Research Laboratory, Boulder, CO 80303

Table 2. Station and location description Cruise RP-9-DI-84

STATION	CAST	CAST TYPE	ST	DATE	TIME	LATITUDE	LONGITUDE	SENSOR
1	1	Chlorophyll	9	29 Feb 84	0810	15 00.0 N	150 00.0 W	Fluor8
	2	Freon	11	29 Feb 84	1905			Fluor7
	3	Geochem	11	29 Feb 84	2025			Trans
	4	K-Meter	--	01 Mar 84	0145			Multi*
2	1	K-Meter	--	01 Mar 84	2325	10 00.0 N	150 00.0 W	Multi*
	2	Chlorophyll	10	01 Mar 84	2355			Fluor7
	3	Freon	11	02 Mar 84	0100			Trans
	4	Geochem	11	02 Mar 84	0300			Trans
3	1	K-Meter	--	03 Mar 84	0200	06 00.0 N	150 00.0 W	Multi*
	2	Chlorophyll	10	03 Mar 84	0230			Fluor7
	3	Freon/Geoch	20	03 Mar 84	0350			Trans
4	1	Freon/Geoch	20	03 Mar 84	1920	04 00.0 N	150 00.0 W	Fluor7
	2	K-Meter	--	03 Mar 84	2038			Multi*
5	1	Chlorophyll	11	04 Mar 84	0618	02 00.0 N	150 00.0 W	Fluor7
	2	Geochem	29	04 Mar 84	0705			Trans
6	1	Freon	11	04 Mar 84	1640	01 00.0 N	150 00.0 W	Trans
7	1	K-Meter	--	04 Mar 84	2250	00 00.0	150 00.0 W	Multi*
	2	Chlorophyll	11	04 Mar 84	2340	00 00.0	150 00.0 W	Fluor6
	3	Geochem	23	05 Mar 84	0040	00 00.0	150 00.0 W	Trans
8	1	Freon	11	05 Mar 84	0925	01 00.0 S	150 00.0 W	Trans
9	1	Chlorophyll	11	05 Mar 84	1600	02 00.0 S	150 00.0 W	Fluor7
	2	Freon/Geoch	21	05 Mar 84	1655	02 00.0 S	150 00.0 W	Trans
	3	K-Meter	--	05 Mar 84	2200	02 00.0 S	150 00.0 W	Multi*
10	1	Freon	11	06 mar 84	0655	04 00.0 S	150 00.0 W	Trans
11	1	Chlorophyll	11	06 Mar 84	1810	06 00.0 S	150 00.0 W	Fluor7
	2	Freon/Geoch	29	06 Mar 84	1907	06 00.0 S	150 00.0 W	Trans
	3	K-Meter	--	06 Mar 84	2330	06 00.0 S	150 00.0 W	Multi*
12	1	Chlorophyll	11	07 Mar 84	1811	10 00.0 S	150 00.0 W	Fluor7
	2	Freon/Geoch	29	07 Mar 84	2215	10 00.0 S	150 00.0 W	Trans
	3	K-Meter	--	08 Mar 84	0200	10 00.0 S	150 00.0 W	Multi*
14	1	Chlorophyll	11	08 Mar 84	2236	15 00.0 S	150 00.0 W	Fluor7
	2	K-Meter	--	08 Mar 84	2315	15 00.0 S	150 00.0 W	Multi*
	3	Freon/Geoch	29	09 Mar 84	0200	15 00.0 S	150 00.0 W	Trans

* OSU K-Meter System Consisting of Spectro-radiometer, Fluorometer, Transmissometer

TABLE 3. OPTICAL DATA SUMMARY, CRUISE RP-9-DI-84

<u>Station #</u>	<u>Position</u>	<u>Activities</u>	
		<u># Casts</u> ¹	<u>Optical Meas./Samples</u> ²
1	15.0N; 150.0W	3-CTD, 1-SK	F, %T, Kd, P, C
2	10.0N; 150.0W	3-CTD, 1-SK	F, %T, Kd, P, C, PSA
3	6.0N; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA
4	4.0N; 150.0W	1-CTD, 1-SK	F, %T, C
5	2.0N; 150.0W	2-CTD	F, %T, Kd, P, C, PSA
6	1.0N; 150.0W	1-CTD	%T
7	0.0N; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA
8	1.0S; 150.0W	1-CTD	%T
9	2.0S; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA
10	4.0S; 150.0W	1-CTD	%T
11	6.0S; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA
12	10.0S; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA
13	12.0S; 150.0W	None	None
14	15.0S; 150.0W	2-CTD, 1-SK	F, %T, Kd, P, C, PSA

¹ CTD = NORDA CTD-Optical System; SK = O.S.U. Spectral K-Meter System

² F = chlorophyll fluorescence; %T = % transmission over 100 cm at 660 nm;
 Kd = Spectral Irradiance; P = Suspended particulates for TSM/SEM study;
 C = Chlorophyll measurements on discrete samples (provided by V. Thayer, Duke
 Marine Lab); PSA = Coulter Counter Particle Size Analysis.

speed of 40 m per minute the 0.5-dbar increments usually represent the average of at least three data cycles.

On chlorophyll casts, 10-liter bottles were used and the fluorometer was employed as the optical sensor. On stations 3-14, when both Freon and geochemistry samples were taken on a single cast, Freon syringe samples were attached to the Rosette and the 30-liter Niskins were on the hydrowire. Therefore, water samples were collected on the upcast either by sending a messenger to trigger the bottles on the hydrowire or by halting the CTD package at the desired depth and triggering the Rosette sampler, which closed one Niskin bottle or syringe per triggering cycle. The CTD readings were recorded continuously at each sample depth while the Rosette was used to close the sample bottles. The CTD values reported for each depth are averages of the data collected during the bottle tripping process, which required about 7 sec.

When the bottles and CTD package arrived on deck, salinity samples were obtained for comparison with the CTD data. Postcruise calibration of the CTD system was also done by the Sensor Calibration Lab. Any constant offset found is used to correct the CTD digital data.

Once the CTD-Rosette system was on deck, water samples were drawn from the Niskin bottles as appropriate to the lability of the parameters being measured. The following parameters were measured or calculated on board:

- conductivity
- in situ temperature
- pressure
- depth
- CTD salinity
- Niskin sample salinity
- fluorometry (chlorophyll fluorescence)
- transmissometry (100 cm beam-path light attenuation at 600 nm)
- chlorophyll and phaeopigments

The following parameters were measured from samples or calculated from data brought back to the laboratory:

- potential temperature
- σ_t
- σ_θ
- total suspended matter (TSM)
- nutrients ($\text{PO}_4^{=}$, Si(OH)_4 , NO_3^- , NO_2^-)

Analytical methods are described in a later section of this report.

2. Field Data Collection--OSU optical system

The OSU K-meter system provided continuous simultaneous profiles of spectral downwelling irradiance, beam transmittance at 660 nm, fluorescence in the chlorophyll band, and conductivity, temperature, and pressure. A description of their optical system and of the particle size analysis system can be found in Appendix B.

3. Field Data Collection--other

In addition to the hydrographic and optical measurements made by NORDA and OSU personnel, measurements were also made at all stations in support of NOAA's CO₂ Dynamics experiment. These include oxygen, nutrients, Freon tracers, nitrous oxide, total CO₂, calcium, alkalinity and halogen gases. Bird and mammal counts were made and a comprehensive velocity profile of the study area undertaken. Information about these data may be obtained from the NOAA chief scientist on this mission, Dr. Richard A. Feely.

4. Analytical Methods

a. Chlorophyll and phaeophytin

Pigment samples were drawn into rinsed 1-liter brown plastic bottles, filtered through Whatman GF/C glass fiber filters, and extracted in 10 ml of 90% acetone. Chlorophyll "a" and phaeophytin were measured after Strickland and Parsons (1972) using a Turner Designs Model 10 Fluorometer (Turner Designs, Mountain View, CA).

b. Salinity

NORDA's Guidline Autosal with BCD output interfaced to a Hewlett-Packard 9825B desktop computer and an H/P printer with NORDA-provided software was used to analyze discrete salinity samples. Calculations were based on the PSS78 Practical Salinity Scale (Fofonoff and Millard, 1983).

c. TSM

Total suspended matter was collected by vacuum filtration of seawater remaining in the 30-liter Niskin bottles after the chemical sampling was done. Seawater was filtered through preweighed 37-mm diameter, 0.4-mm pore size Nuclepore filters (Nuclepore Corp., Pleasanton, CA) in specially adapted Teflon in-line filter holders. The filter holders were dismantled in a laminar-flow hood, the filters were rinsed with distilled water and placed in a plastic culture disk (Millipore Corp., Bedford, MA) in a vacuum desiccator to dry overnight. Filters were weighed on shore in a Cahn electrobalance (Cahn Instruments, Inc., Cerritos, CA). Preweighed "blank" filters were stored along with sample filters but no seawater passed through them.

d. Suspended particulates for image analysis

One liter of seawater was filtered through 37-mm diameter 0.4 μm pore size Nuclepore filters in a laminar-flow hood. After careful rinsing with distilled water, the filter was placed in a vacuum chamber for drying and later optical characterization with NORDA's Chemical/Image Analysis System (ICAS). This system consists of a scanning electron microscope (AMRAY 1000, AMRAY Corp., Bedford, MA), an energy dispersive X-ray spectrometer (Kevex 7000, Kevex Corp., Foster City, CA), and a LeMont DA-10 Image Analysis System (LeMont Scientific, State College, PA).

e. Nutrients

Samples were drawn into 125-ml amber plastic bottles and frozen for on-shore analysis. Sample preparation followed Strickland and Parsons (1972).

Analysis was performed at the University of Washington using a Technican Auto Analyzer (Technican Instruments Corp., Tarrytown, NY).

RESULTS AND DISCUSSION

Table 2 provides complete summary data on each station and cast. Date, time, location, type of cast, external sensor, and number of water samples taken (ST) are provided for each cast. Table 3 lists only optical data obtained at each station.

The following comments apply to the data tables:

1. Time given is GMT. For this cruise local time was GMT minus 10 hours.
2. Where a line appears, no data were collected or reported; where a zero (0) appears, the parameter was below detectable limits.
3. Nutrient data and TSM weights were supplied by Dr. Richard Feely at Pacific Marine Environmental Laboratories, Seattle, WA.
4. Table Legend:

<u>Legend</u>	<u>Unit of Measure</u>	<u>Definition</u>
PRESS	dbars	pressure measured from CTD pressure sensor on chlorophyll casts, from hydrowire position correlated with CTD on chemical casts.
DEPTH	m	depth calculated from pressure reading (Saunders, 1981)
TEMP	°C	in situ temperature from CTD reading on chlorophyll casts and from reversing thermometers on chemical casts
POT TEMP	°C	potential temperature calculated from pressure and temperature readings (Bryden, 1973)
SALINITY	‰	salinity of Niskin sample measured with Autosal (PSS78)
SIGMA THETA	(density - 1) × 10 ³	density anomaly using Autosal salinity and potential temperature (Millero et al., 1980)
FLUOR	% of full scale	chlorophyll fluorescence

ATTEN COEFF	m^{-1}	attenuation coefficient calculated from transmissometry
PHOSPHATE	$\mu\text{m}/\text{kg}$	dissolved orthophosphate phosphorus, PO_4
SILICATE	$\mu\text{m}/\text{kg}$	dissolved silicate silicon, SiO_4
NITRATE	$\mu\text{m}/\text{kg}$	dissolved nitrate nitrogen, NO_3
NITRITE	$\mu\text{m}/\text{kg}$	dissolved nitrite nitrogen, NO_2
TSM	$\mu\text{g/L}$ of seawater	Total Suspended Matter
CHLOROPHYLL	$\mu\text{g/L}$	total chlorophyll "a"
PHAEOPHYTIN	$\mu\text{g/L}$	total phaeopigment (chlorophyll degradation products)

Figure 2 incorporates data from 10 stations contoured to 500 m from 15.0°N to 15.0°S on a transect at 150.0°W. Dr. Richard Feely's permission to include the figure is gratefully acknowledged.

Data acquired on this field mission provides a comprehensive suite of near-simultaneous optical and geochemical measurements for the continual study of the interrelationship between marine optical properties and the biogeochemical character of the environment. Samples were obtained for use in developing the Image Analysis/Scanning Electron Microscopy techniques for application to the optical characterization of marine suspended matter. The availability of the supplementary biogeochemical and physical data with the complementary information on spatial variations of spectral Kd (diffuse attenuation coefficient) gives us a powerful base for working with the optical characterization of water masses.

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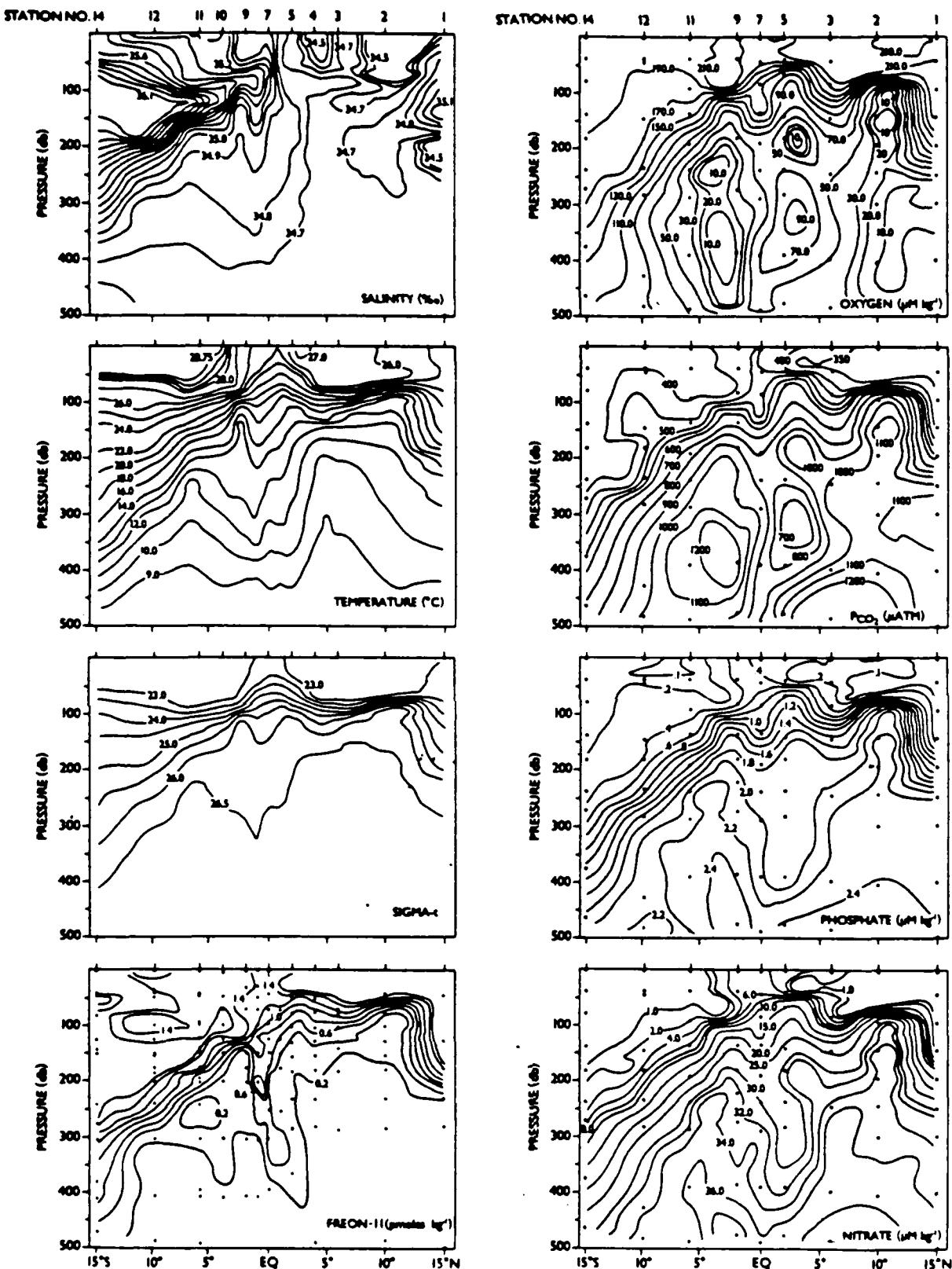


Figure 2. Contours of salinity, temperature, sigma-t, oxygen, phosphate and nitrate data obtained on RP-9-DI-84 aboard NOAA ship DISCOVERER. Station 1 is at 15°N, Station 14 is at 15°S on a transect at 150°W. From Feely, et al., 1986.

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Appendix A

STATION DATA TABLES
CTD PROFILES
TEMPERATURE - SALINITY (T - S) DIAGRAMS

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 1

CAST 1

29 FEB. 1984

1842 GMT

POSITION 15.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	9.7	9.6	24.724	24.722	34.397	22.971	12.2
2	19.3	19.2	24.724	24.720	34.397	22.971	12.8
3	24.5	24.3	24.723	24.718	34.400	22.973	11.4
4	33.8	33.5	24.854	24.847	34.767	23.211	11.3
5	49.2	48.8	24.867	24.856	34.814	23.243	11.6
6	73.7	73.1	24.820	24.804	34.871	23.300	16.7
7	100.4	99.6	23.319	23.298	34.892	23.761	30.2
8	126.6	125.6	21.919	21.894	34.968	24.218	94.5
9	132.8	131.8	21.588	21.562	34.988	24.325	93.5

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
9.6	0.57	2.2	0.05	0.07	-	0.032	0.028
19.2	0.43	2.1	0.05	0.02	-	0.037	0.014
24.3	0.41	2.1	0.05	0.07	-	0.042	0.019
33.5	0.39	2.0	0.05	0.07	-	0.039	0.019
48.8	0.37	1.9	0.05	0.07	-	0.041	0.022
73.1	0.35	1.9	0.05	0.07	-	0.068	0.024
99.6	0.35	2.0	0.05	0.07	-	0.062	0.039
125.6	0.39	2.1	0.03	0.09	-	0.139	0.146
131.8	0.41	2.2	0.03	0.21	-	0.207	0.240

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 1

CAST 3

29 FEB. 1984

2310 GMT

POSITION 15.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	10.0	9.9	24.280	24.278	34.529	23.203	0.441
2	49.0	48.6	24.960	24.949	34.814	23.215	0.410
3	99.0	98.2	24.500	24.479	35.021	23.510	0.410
4	149.0	147.8	21.460	21.431	35.218	24.535	0.398
5	199.0	197.4	13.460	13.432	34.296	25.755	0.383
6	251.0	249.0	11.450	11.418	34.589	26.374	0.380
7	300.0	297.5	10.840	10.803	34.648	26.531	0.381
8	400.0	396.6	9.390	9.345	34.600	26.742	0.383
9	499.0	494.7	8.460	8.407	34.582	26.876	0.382
10	598.0	592.7	7.630	7.570	34.549	26.974	0.380
11	699.0	692.6	6.600	6.535	34.511	27.088	0.378
12	785.0	777.7	5.890	5.821	34.500	27.172	0.377
13	998.0	988.2	4.870	4.788	34.528	27.316	0.377
14	1242.0	1229.1	3.940	3.844	34.559	27.442	0.376
15	1469.0	1453.0	3.310	3.201	34.588	27.527	0.376
16	5964.0	5842.0	2.330	1.741	34.629	27.648	0.376
17	2499.0	2466.2	1.850	1.672	34.659	27.710	0.375
18	2962.0	2920.1	1.670	1.453	34.574	27.656	0.376

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
9.9	0.05	1.3	0.02	-	21.7	-	-
48.6	0.06	1.3	-	-	26.8	-	-
98.2	0.04	1.3	-	-	30.8	-	-
147.8	0.05	1.7	0.51	-	-	-	-
197.4	0.97	12.1	14.41	-	16.4	-	-
249.0	2.12	27.0	29.49	-	-	-	-
297.5	2.24	30.3	32.39	-	21.2	-	-
396.6	2.34	37.4	35.41	-	-	-	-
494.7	2.45	43.7	37.13	-	2.9	-	-
592.7	2.55	51.3	38.41	-	-	-	-
692.6	2.67	62.1	38.87	-	7.8	-	-
777.7	2.76	75.7	41.98	-	-	-	-
988.2	2.82	89.9	43.26	-	-	-	-
1229.1	2.81	106.8	43.09	-	-	-	-
1453.0	2.72	118.4	42.71	-	-	-	-
5842.0	2.47	140.9	40.78	-	-	-	-
2466.2	2.33	151.6	39.04	-	-	-	-
2920.1	2.36	156.6	38.90	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 2

CAST 2

01 MAR. 1984

2355 GMT

POSITION 10.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY ‰	SIGMA THETA	FLUOR %FS
1	0.0	0.0	25.910	25.910	34.283	22.522	0.4
2	11.3	11.2	25.876	25.873	34.284	22.534	0.4
3	19.8	19.6	25.812	25.808	34.287	22.556	8.4
4	24.2	24.0	25.809	25.804	34.287	22.557	8.1
5	34.1	33.8	25.804	25.796	34.289	22.560	11.0
6	49.3	48.9	25.804	25.793	34.291	22.561	14.0
7	77.0	76.4	18.648	18.635	34.455	24.695	87.0
8	100.6	99.8	13.395	13.381	34.602	26.005	34.0
9	125.6	124.6	12.268	12.251	34.691	26.298	13.4
10	138.9	137.8	11.888	11.870	34.698	26.376	10.2
11	162.0	160.7	11.382	11.362	34.729	26.495	6.7

DEPTH M	PHOSPHATE µM/kg	SILICATE µM/kg	NITRATE µM/kg	NITRITE µM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
0.0	0.49	2.0	0.07	0.17	-	0.101	0.042
11.2	0.41	1.9	0.05	0.07	-	0.100	0.042
19.6	0.39	1.9	0.03	0.09	-	0.100	0.065
24.0	0.39	1.9	0.03	0.09	-	0.106	0.055
33.8	0.39	1.9	0.03	0.09	-	0.094	0.081
48.9	0.39	1.9	0.03	0.09	-	0.091	0.085
76.4	1.02	6.5	6.14	0.24	-	0.229	0.275
99.8	2.42	22.3	26.50	0.50	-	0.204	0.332
124.6	2.86	28.3	30.00	0.09	-	0.069	0.154
137.8	2.86	27.4	30.00	0.12	-	0.083	0.231
160.7	2.93	29.5	30.00	0.09	-	0.028	0.080

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 2

CAST 4

03 MARCH 1984

0600 GMT

POSITION 10.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	10.0	9.9	25.820	25.818	34.291	22.556	0.413
2	70.0	69.5	22.450	22.436	34.533	23.738	0.439
3	99.0	98.2	13.420	13.406	34.596	25.996	0.404
4	147.0	145.8	11.570	11.551	34.738	26.467	0.382
5	197.0	195.4	10.720	10.696	34.706	26.597	0.381
6	246.0	244.0	10.290	10.261	34.706	26.673	0.385
7	301.0	298.5	9.880	9.845	34.696	26.735	0.387
8	404.0	400.6	9.200	9.155	34.665	26.824	0.385
9	501.0	496.6	8.260	8.208	34.611	26.929	0.385
10	683.0	676.8	6.210	6.148	34.541	27.163	0.379
11	795.0	787.6	5.360	5.293	34.541	27.269	0.378
12	980.0	970.4	4.460	4.382	34.559	27.386	0.377
13	1245.0	1232.1	3.640	3.547	34.584	27.492	0.377
14	1495.0	1478.7	3.000	2.892	34.606	27.571	0.377
15	1999.0	1974.9	2.100	1.962	34.648	27.682	0.376
16	2500.0	2467.1	1.840	1.662	34.670	27.720	0.376
17	2983.0	2940.7	1.660	1.441	34.680	27.742	0.376

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
9.9	0.09	1.8	0.21	-	40.4	-	-
69.5	0.14	2.3	0.11	-	40.4	-	-
98.2	1.73	21.7	27.08	-	17.1	-	-
145.8	2.19	28.1	34.44	-	-	-	-
195.4	2.18	30.3	34.44	-	12.1	-	-
244.0	2.22	31.4	35.18	-	-	-	-
298.5	-	-	-	-	12.6	-	-
400.6	2.42	38.3	37.56	-	-	-	-
496.6	2.70	48.6	38.28	-	8.0	-	-
676.8	2.76	68.3	41.44	-	7.3	-	-
787.6	2.86	79.7	43.24	-	-	-	-
970.4	2.84	95.8	43.25	-	-	-	-
1232.1	2.77	113.2	42.34	-	-	-	-
1478.7	2.70	127.9	41.81	-	-	-	-
1974.9	2.35	145.9	36.91	-	-	-	-
2467.1	2.44	154.2	39.20	-	-	-	-
2940.7	2.35	156.8	38.47	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 3

CAST 2

03 MARCH 1984

0230 GMT

POSITION 6.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	7.2	7.1	26.889	26.887	34.603	22.456	1.1
2	10.7	10.6	26.870	26.868	34.609	22.467	8.5
3	19.2	19.1	26.746	26.742	34.608	22.505	35.2
4	24.0	23.8	26.736	26.731	34.608	22.508	33.2
5	33.9	33.6	26.727	26.719	34.608	22.511	61.3
6	49.2	48.8	26.722	26.711	34.608	22.513	58.6
7	60.6	60.1	26.720	26.706	34.608	22.514	53.6
8	80.5	79.9	26.022	26.004	34.804	22.881	71.5
9	99.8	99.0	21.834	21.814	34.675	24.019	29.9
10	124.3	123.3	14.475	14.457	34.624	25.797	9.3
11	139.5	138.4	12.970	12.951	34.612	26.099	5.4
DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
7.1	0.65	2.7	2.17	0.19	-	0.159	0.088
10.6	0.57	2.6	1.99	0.14	-	0.145	0.094
19.1	0.55	2.6	1.99	0.14	-	0.151	0.092
23.8	0.55	2.6	1.99	0.14	-	0.239	0.143
33.6	0.55	2.5	1.99	0.14	-	0.190	0.108
48.8	0.53	2.5	1.99	0.14	-	0.168	0.144
60.1	0.55	2.5	1.99	0.14	-	0.235	0.163
79.9	0.61	2.9	2.64	0.31	-	0.275	0.355
99.0	0.79	5.2	4.54	0.78	-	0.252	0.353
123.3	1.93	18.7	20.43	0.12	-	0.095	0.162
138.4	2.21	23.7	23.77	0.09	-	0.036	0.072

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 3

CAST 3

03 MARCH 1984

0624 GMT

POSITION 6.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	9.0	8.9	26.840	26.838	34.607	22.475	0.465
2	49.0	48.6	26.720	26.709	34.604	22.511	0.458
3	90.0	89.3	23.580	23.561	34.790	23.608	0.438
4	149.0	147.8	12.220	12.200	34.618	26.251	0.396
5	248.0	246.0	9.470	9.442	34.680	26.791	0.398
6	397.0	393.6	8.510	8.468	34.644	26.917	0.395
7	482.0	477.8	7.680	7.632	34.602	27.009	0.395
8	595.0	589.7	6.470	6.416	34.502	27.098	0.391
9	668.0	661.9	5.800	5.742	34.555	27.226	0.389
10	770.0	762.8	5.120	5.056	34.558	27.311	0.388
11	973.0	963.5	4.350	4.274	34.573	27.410	0.386
12	1215.0	1202.5	3.560	3.470	34.594	27.508	0.383
13	1454.0	1438.2	3.050	2.945	34.612	27.571	0.381
14	1954.0	1930.7	2.190	2.054	34.649	27.675	0.377
15	2448.0	2416.1	1.870	1.696	34.671	27.718	0.377
16	2939.0	2897.6	1.680	1.465	34.681	27.741	0.377
17	3922.0	3858.4	1.410	1.102	34.699	27.775	0.379

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
8.9	0.20	2.1	1.63	-	41.3	-	-
48.6	0.17	2.0	1.69	-	37.1	-	-
89.3	0.32	3.8	3.04	-	30.5	-	-
147.8	1.46	20.4	23.60	-	-	-	-
246.0	2.07	31.1	34.71	-	-	-	-
393.6	2.27	36.4	37.20	-	-	-	-
477.8	2.56	47.2	39.58	-	9.9	-	-
589.7	2.63	58.7	41.07	-	-	-	-
661.9	2.70	65.1	41.24	-	11.0	-	-
762.8	2.72	75.9	41.76	-	-	-	-
963.5	2.72	90.5	41.94	-	-	-	-
1202.5	2.71	108.0	41.06	-	-	-	-
1438.2	2.56	119.3	40.55	-	-	-	-
1930.7	2.40	136.7	39.57	-	-	-	-
2416.1	2.35	146.3	37.91	-	-	-	-
2897.6	2.35	146.3	37.91	-	-	-	-
3858.4	2.17	137.5	35.84	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 5

CAST 1

04 MARCH 1984

0610 GMT

POSITION 02.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	0.0	0.0	-	-	34.674	-	-
2	15.0	14.9	26.631	26.628	34.674	22.591	-
3	25.0	24.8	26.540	26.534	34.662	22.611	-
4	29.0	28.8	26.474	26.467	34.658	22.629	-
5	38.0	37.7	26.237	26.228	34.659	22.704	-
6	51.0	50.6	24.796	24.785	34.784	23.242	-
7	75.0	74.4	21.833	21.818	34.807	24.119	-
8	97.0	96.2	19.470	19.452	34.829	24.771	-
9	125.0	124.0	14.061	14.043	34.776	26.002	-
10	141.0	139.9	13.281	13.261	34.859	26.228	-
11	161.0	159.7	12.676	12.654	34.850	26.342	-
DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
0.0	0.63	2.8	3.17	0.26	-	0.118	0.043
14.9	0.59	2.8	2.59	0.24	-	0.143	0.072
24.8	0.59	2.8	2.59	0.24	-	0.139	0.094
28.8	0.59	2.8	2.59	0.24	-	0.167	0.112
37.7	0.61	2.8	2.79	0.28	-	0.232	0.230
50.6	0.79	3.8	4.58	0.85	-	0.275	0.280
74.4	0.79	3.8	4.58	0.85	-	0.073	0.104
96.2	1.08	7.0	9.10	1.06	-	0.243	0.304
124.0	1.44	10.2	14.36	0.76	-	0.121	0.093
139.9	1.97	19.3	21.61	0.12	-	0.037	0.057
159.7	2.17	20.2	24.00	0.09	-	0.029	0.047

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 5 CAST 2 04 MARCH 1985 0930 GMT

POSITION 2.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	9.0	8.9	26.650	26.648	34.679	22.589	0.444
2	47.0	46.6	24.910	24.900	34.676	23.125	0.432
3	73.0	72.4	19.790	19.777	34.834	24.691	0.415
4	145.0	143.9	13.120	13.100	34.881	26.277	0.383
5	184.0	182.5	12.000	11.976	34.845	26.469	0.385
6	240.0	238.1	11.430	11.400	34.786	26.531	0.383
7	284.0	281.7	10.810	10.775	34.745	26.612	0.384
8	390.0	386.7	9.750	9.705	34.734	26.787	0.381
9	475.0	470.9	8.280	8.230	34.627	26.939	0.380
10	570.0	565.0	6.910	6.856	34.571	27.093	0.378
11	632.0	626.3	5.660	5.606	34.552	27.241	0.376
12	765.0	757.9	5.250	5.186	34.551	27.290	0.376
13	960.0	950.7	4.480	4.404	34.560	27.385	0.375
14	1198.0	1185.7	3.760	3.670	34.581	27.478	0.377
15	1432.0	1416.6	3.190	3.086	34.602	27.550	0.376
16	1921.0	1898.2	2.310	2.175	34.640	27.658	0.376
17	2450.0	2418.1	1.830	1.657	34.669	27.720	0.376
18	2902.0	2861.3	1.700	1.488	34.677	27.736	0.377

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
8.9	0.24	2.8	2.40	-	32.9	-	-
46.6	0.27	2.9	2.79	-	79.8	-	-
72.4	0.95	9.3	14.26	-	26.7	-	-
143.9	1.60	19.7	25.97	-	-	-	-
182.5	1.96	24.3	30.98	-	17.4	-	-
238.1	1.76	24.7	28.88	-	-	-	-
281.7	1.81	25.8	28.89	-	19.2	-	-
386.7	-	-	-	-	-	-	-
470.9	2.43	39.8	37.38	-	13.3	-	-
565.0	2.64	54.0	40.28	-	-	-	-
626.3	2.54	57.8	38.85	-	9.3	-	-
757.9	2.50	64.4	39.47	-	-	-	-
950.7	2.50	78.2	38.85	-	-	-	-
1185.7	2.59	93.5	39.47	-	-	-	-
1416.6	2.53	107.2	39.47	-	-	-	-
1898.2	2.52	126.5	39.31	-	-	-	-
2418.1	2.39	135.9	37.96	-	-	-	-
2861.3	2.29	135.0	37.25	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 7 CAST 2 04 MARCH 1984 2340 GMT

POSITION 0.0 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	0.0	0.0	-	-	-	-	0.0
2	9.4	9.3	25.668	25.666	34.952	23.102	0.4
3	19.4	19.3	25.495	25.491	34.954	23.157	3.8
4	24.3	24.1	25.329	25.324	34.964	23.215	1.8
5	36.4	36.1	24.856	24.848	35.033	23.412	6.1
6	49.4	49.0	24.256	24.246	35.087	23.633	25.9
7	59.1	58.6	23.781	23.769	35.077	23.766	42.8
8	74.9	74.3	22.523	22.508	35.108	24.154	22.0
9	90.0	89.3	20.170	20.153	35.253	24.911	4.7
10	98.6	97.8	18.475	18.458	35.157	25.275	2.2
11	124.1	123.1	16.533	16.513	35.100	25.702	0.5

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
0.0	0.85	3.9	4.62	0.33	-	0.224	0.104
9.3	0.81	3.8	4.65	0.31	-	0.203	0.126
19.3	0.81	3.7	4.65	0.31	-	0.262	0.148
24.1	0.81	3.7	4.87	0.33	-	0.268	0.178
36.1	0.85	3.7	5.39	0.44	-	0.344	0.362
49.0	0.89	3.9	6.03	0.47	-	0.367	0.339
58.6	0.89	4.1	6.16	0.45	-	0.371	0.445
74.3	0.94	5.2	7.48	0.43	-	0.546	0.629
89.3	1.10	6.5	9.90	0.26	-	0.227	0.372
97.8	1.18	9.0	11.32	0.14	-	0.241	0.289
123.1	1.34	11.1	13.58	0.12	-	0.064	0.095

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 7

CAST 3

05 MARCH 1984

0256 GMT

POSITION 0.0 N 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	10.0	9.9	25.700	25.698	34.937	23.081	0.494
2	50.0	49.6	23.930	23.919	35.070	23.717	0.485
3	89.0	88.3	18.260	18.245	35.163	25.334	0.412
4	140.0	138.9	15.100	15.079	34.902	25.875	0.381
5	193.0	191.5	12.820	12.794	34.809	26.281	0.386
6	240.0	238.1	12.040	12.009	34.021	25.822	0.385
7	290.0	287.6	11.340	11.304	34.580	26.387	0.388
8	390.0	386.7	9.700	9.655	34.566	26.664	0.385
9	486.0	481.8	7.840	7.791	34.557	26.950	0.381
10	585.0	579.8	7.000	6.944	34.613	27.114	0.380
11	681.0	674.8	6.040	5.979	34.597	27.229	0.379
12	782.0	774.7	5.300	5.234	34.527	27.265	0.379

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
9.9	0.37	3.0	4.42	-	64.4	-	-
49.6	0.46	3.2	5.76	-	59.7	-	-
88.3	0.78	8.4	11.96	-	49.4	-	-
138.9	1.05	12.2	16.80	-	-	-	-
191.5	1.74	20.3	28.02	-	20.7	-	-
238.1	1.84	22.9	29.80	-	-	-	-
287.6	2.01	26.1	32.49	-	18.2	-	-
386.7	2.06	28.3	32.94	-	-	-	-
481.8	2.32	38.1	36.31	-	12.9	-	-
579.8	2.57	49.9	39.27	-	-	-	-
674.8	2.46	55.8	37.01	-	11.5	-	-
774.7	2.56	65.5	38.19	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 9

CAST 1

05 MARCH 1984

1600 GMT

POSITION 2.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	0.0	0.0	-	-	-	-	45.9
2	10.8	10.7	26.105	26.103	34.926	22.947	43.9
3	20.6	20.4	26.095	26.090	34.926	22.950	43.7
4	25.6	25.4	26.092	26.086	34.926	22.951	43.0
5	35.2	34.9	26.081	26.073	34.926	22.954	45.3
6	50.5	50.1	26.052	26.041	34.926	22.963	51.6
7	60.3	59.8	26.050	26.037	34.927	22.965	55.7
8	74.9	74.3	25.886	25.869	34.913	23.005	57.5
9	90.7	90.0	24.037	24.018	34.457	23.221	52.6
10	101.3	100.5	20.148	20.129	35.412	25.038	45.8
11	127.4	126.4	14.824	14.805	35.089	26.080	12.4
DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
0.0	0.75	3.4	4.46	0.26	-	0.137	0.083
10.7	0.73	3.4	4.58	0.26	-	0.109	0.091
20.4	0.73	3.4	4.46	0.26	-	0.152	0.111
25.4	0.71	3.4	4.46	0.26	-	0.174	0.105
34.9	0.73	3.4	4.46	0.26	-	0.167	0.096
50.1	0.71	3.3	4.46	0.26	-	0.174	0.137
59.8	0.73	3.3	4.46	0.26	-	0.196	0.171
74.3	0.73	3.4	4.46	0.26	-	0.188	0.170
90.0	0.96	2.8	5.20	1.30	-	0.196	0.243
100.5	1.38	5.3	10.86	2.01	-	0.215	0.292
126.4	2.19	14.9	23.86	0.12	-	0.112	0.159

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 9 CAST 2 05 MARCH 1984 1655 GMT
 POSITION 02.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	10.0	9.9	26.100	26.098	34.922	22.945	0.452
2	45.0	44.7	26.060	26.050	34.919	22.955	0.456
3	87.0	86.3	24.410	24.391	34.923	23.463	0.430
4	140.0	138.9	13.720	13.700	34.174	25.608	0.402
5	184.0	182.5	13.080	13.055	34.937	26.329	0.394
6	225.0	223.2	12.520	12.490	34.903	26.414	0.396
7	276.0	273.7	12.300	12.263	34.885	26.443	0.394
8	385.0	381.8	9.830	9.786	34.811	26.834	0.394
9	473.0	468.9	8.490	8.440	34.669	26.940	0.389
10	575.0	569.9	6.630	6.577	34.595	27.150	0.386
11	624.0	618.4	6.720	6.662	34.553	27.105	0.385
12	746.0	739.1	5.230	5.168	34.550	27.292	0.384
13	923.0	914.1	4.780	4.705	34.556	27.349	0.381
14	1168.0	1156.1	3.740	3.652	34.575	27.475	0.378
15	1410.0	1394.9	3.110	3.008	34.601	27.556	0.378
16	1880.0	1857.9	2.320	2.189	34.642	27.659	0.377
17	2342.0	2312.0	1.960	1.794	34.662	27.704	0.377
18	2659.0	2623.1	1.680	1.491	34.677	27.738	0.377

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
9.9	0.42	3.3	4.52	-	49.5	-	-
44.7	0.41	3.0	4.51	-	67.3	-	-
86.3	0.40	3.0	4.42	-	65.2	-	-
138.9	1.51	12.0	22.94	-	-	-	-
182.5	1.86	19.9	29.37	-	28.7	-	-
223.2	2.08	23.2	32.43	-	-	-	-
273.7	2.08	24.0	32.45	-	13.9	-	-
381.8	2.36	30.0	34.81	-	-	-	-
468.9	2.56	38.4	39.17	-	15.6	-	-
569.9	2.59	44.8	39.65	-	-	-	-
618.4	2.59	55.2	39.83	-	9.5	-	-
739.1	2.48	68.3	39.03	-	-	-	-
914.1	2.59	77.4	39.20	-	-	-	-
1156.1	2.62	96.5	39.85	-	-	-	-
1394.9	2.57	109.4	39.85	-	-	-	-
1857.9	2.57	132.6	39.83	-	-	-	-
2312.0	2.47	141.8	39.03	-	-	-	-
2623.1	2.37	140.8	37.55	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 11 CAST 1 06 MARCH 1984 1810 GMT

POSITION 06.0 S 150.5 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	1.6	1.6	29.086	29.086	35.300	22.263	0.6
2	10.5	10.4	29.085	29.082	35.310	22.271	16.5
3	20.8	20.6	29.059	29.054	35.305	22.276	17.1
4	25.6	25.4	28.996	28.990	35.296	22.290	19.1
5	35.5	35.2	28.908	28.899	35.292	22.316	12.9
6	50.8	50.4	28.712	28.700	35.308	22.394	18.0
7	60.8	60.3	28.536	28.521	35.324	22.464	24.3
8	75.1	74.5	28.027	28.009	35.323	22.631	56.7
9	90.5	89.8	26.946	26.925	35.473	23.093	66.3
10	101.2	100.4	26.308	26.285	35.606	23.396	57.7
11	125.5	124.5	22.720	22.694	35.993	24.769	10.3

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
1.6	0.45	2.7	-	0.12	-	0.096	0.067
10.4	0.39	1.5	0.05	0.07	-	0.100	0.089
20.6	0.39	1.4	0.05	0.07	-	0.122	0.083
25.4	0.39	1.4	0.05	0.07	-	0.126	0.053
35.2	0.37	1.3	0.05	0.07	-	0.105	0.077
50.4	0.37	1.3	0.05	0.07	-	0.148	0.111
60.3	0.41	1.4	0.05	0.07	-	0.124	0.072
74.5	0.45	1.7	0.50	0.21	-	0.269	0.203
89.8	0.65	2.1	2.06	1.37	-	0.349	0.379
100.4	0.69	2.2	4.09	0.40	-	0.321	0.486
124.5	0.83	1.7	5.26	0.17	-	0.154	0.201

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 11 CAST 2 06 MARCH 1984 2130 GMT

POSITION 06.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	9.0	8.9	29.100	29.098	35.318	22.272	0.438
2	45.0	44.7	28.900	28.889	35.285	22.314	0.433
3	96.0	95.3	26.890	26.868	35.437	23.084	0.438
4	140.0	138.9	21.250	21.223	35.834	25.062	0.405
5	194.0	192.4	15.350	15.320	35.095	25.968	0.391
6	240.0	238.1	11.570	11.539	34.871	26.571	0.392
7	288.0	285.6	10.770	10.735	34.803	26.664	0.393
8	390.0	386.7	9.140	9.097	34.711	26.870	0.393
9	485.0	480.8	7.930	7.881	34.626	26.991	0.391
10	588.0	582.8	6.740	6.685	34.575	27.120	0.388
11	678.0	671.8	5.830	5.771	34.548	27.217	0.387
12	779.0	771.7	5.130	5.066	34.544	27.299	0.385
13	978.0	968.4	4.370	4.293	34.556	27.394	0.384
14	1218.0	1205.4	3.450	3.361	34.584	27.511	0.381
15	1471.0	1455.0	2.970	2.865	34.606	27.573	0.379
16	1960.0	1936.6	2.240	2.103	34.645	27.668	0.376
17	2462.0	2429.8	1.870	1.695	34.675	27.722	0.374
18	2898.0	2857.4	1.690	1.478	34.685	27.743	0.374

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
8.9	0.13	1.1	0.00	-	131.3	-	-
44.7	0.12	1.0	0.00	-	40.5	-	-
95.3	0.32	1.7	1.85	-	62.1	-	-
138.9	0.55	1.5	6.25	-	-	-	-
192.4	1.40	7.7	18.89	-	23.5	-	-
238.1	2.06	21.7	29.93	-	-	-	-
285.6	2.11	26.1	32.64	-	10.5	-	-
386.7	2.31	31.8	36.18	-	-	-	-
480.8	2.20	35.2	34.86	-	11.9	-	-
582.8	2.38	43.4	36.16	-	-	-	-
671.8	2.49	53.7	39.21	-	21.3	-	-
771.7	2.43	64.4	36.02	-	-	-	-
968.4	2.54	79.9	39.37	-	-	-	-
1205.4	2.56	99.9	39.05	-	-	-	-
1455.0	2.58	111.3	38.88	-	-	-	-
1936.6	2.49	127.6	38.26	-	-	-	-
2429.8	2.38	134.8	37.52	-	-	-	-
2857.4	2.34	140.2	36.80	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 12

CAST 1

07 MARCH 1984

1811 GMT

POSITION 10.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	2.9	2.9	29.957	29.956	35.420	22.058	0.6
2	9.9	9.8	29.957	29.955	35.427	22.064	6.8
3	20.5	20.3	29.906	29.901	35.437	22.088	6.7
4	24.3	24.1	29.723	29.717	35.455	22.164	3.7
5	34.7	34.4	29.574	29.565	35.486	22.238	5.6
6	49.9	49.5	28.658	28.646	35.581	22.617	10.0
7	61.3	60.8	28.040	28.025	35.650	22.873	15.7
8	75.4	74.8	27.428	27.410	35.632	23.058	41.0
9	89.9	89.2	26.894	26.873	35.735	23.307	53.4
10	101.0	100.2	26.898	26.875	38.086	25.079	45.0
11	124.5	123.5	25.229	25.202	36.181	24.166	27.4

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
2.9	0.45	1.3	0.00	0.12	-	0.057	0.034
9.8	0.53	1.8	0.05	0.07	-	0.050	0.035
20.3	0.51	1.5	0.05	0.07	-	0.045	0.033
24.1	0.47	1.4	0.05	0.07	-	0.060	0.021
34.4	0.47	1.3	0.05	0.07	-	0.054	0.034
49.5	0.49	1.5	0.05	0.07	-	0.085	0.049
60.8	0.47	1.5	0.05	0.07	-	0.067	0.034
74.8	0.49	1.7	0.18	0.17	-	0.145	0.086
89.2	0.57	2.2	0.52	0.54	-	0.159	0.127
100.2	0.49	1.3	0.10	0.14	-	0.209	0.200
123.5	0.69	1.7	2.27	0.45	-	0.161	0.210

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 12

CAST 2

07 MARCH 1984

2215 GMT

POSITION 10.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY ‰	SIGMA THETA	ATTEN COEFF.
1	8.0	7.9	29.960	29.958	35.421	22.058	0.413
2	45.0	44.7	29.580	29.569	35.510	22.254	0.416
3	51.0	50.6	29.300	29.288	35.937	22.669	0.417
4	150.0	148.8	26.770	26.736	36.252	23.737	0.391
5	184.0	182.5	21.430	21.394	35.853	25.027	0.381
6	237.0	235.1	15.810	15.773	35.166	25.920	0.377
7	284.0	281.7	12.050	12.013	34.811	26.433	0.377
8	426.0	422.4	8.340	8.295	34.637	26.938	0.377
9	480.0	475.8	7.820	7.772	34.612	26.996	0.376
10	590.0	584.8	6.870	6.814	34.568	27.097	0.375
11	653.0	647.1	6.320	6.261	34.551	27.157	0.375
12	771.0	763.8	5.710	5.643	34.537	27.223	0.374
13	1267.0	1253.8	3.400	3.307	34.575	27.508	0.372
14	1838.0	1816.5	2.320	2.192	34.635	27.653	0.372
15	2395.0	2364.1	1.890	1.721	34.672	27.718	0.372

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
7.9	0.11	0.9	0.14	-	32.2	-	-
44.7	0.11	1.1	0.08	-	31.8	-	-
50.6	0.19	1.1	0.37	-	51.1	-	-
148.8	0.38	1.0	2.87	-	-	-	-
182.5	0.45	1.2	5.00	-	42.9	-	-
235.1	0.94	1.1	12.27	-	-	-	-
281.7	1.66	4.3	23.06	-	26.7	-	-
422.4	2.14	13.2	33.60	-	-	-	-
475.8	2.24	31.7	34.81	-	18.4	-	-
584.8	2.39	44.8	36.80	-	-	-	-
647.1	2.47	52.5	38.25	-	15.2	-	-
763.8	-	-	-	-	-	-	-
1253.8	2.48	90.4	37.64	-	-	-	-
1816.5	2.37	115.2	36.77	-	-	-	-
2364.1	2.37	128.5	36.50	-	-	-	-

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 14

CAST 1

08 MARCH 1984

2236 GMT

POSITION 15.0 S 150.0 W

BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	FLUOR %FS
1	2.2	2.2	29.988	29.987	35.548	22.144	0.6
2	10.3	10.2	29.918	29.915	35.554	22.172	0.9
3	20.1	19.9	29.907	29.902	35.554	22.176	2.2
4	25.2	25.0	29.904	29.898	35.554	22.177	0.6
5	35.5	35.2	29.690	29.681	35.570	22.262	1.6
6	50.1	49.7	29.388	29.376	35.621	22.402	1.5
7	60.1	59.6	28.928	28.913	35.782	22.678	1.1
8	79.4	78.8	27.598	27.579	36.057	23.323	4.0
9	99.5	98.7	26.390	26.367	36.190	23.811	10.4
10	131.3	130.3	24.586	24.558	36.187	24.366	19.3
11	159.2	157.9	23.431	23.398	36.090	24.637	16.8

DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
2.2	0.41	1.2	0.03	0.09	-	0.043	0.010
10.2	0.39	1.2	0.05	0.07	-	0.048	0.024
19.9	0.39	1.2	0.05	0.07	-	0.054	0.022
25.0	0.39	1.2	0.05	0.07	-	0.073	0.028
35.2	0.37	1.2	0.05	0.07	-	0.076	0.048
49.7	0.39	1.2	0.05	0.07	-	0.061	0.032
59.6	0.37	1.2	0.05	0.07	-	0.053	0.031
78.8	0.39	1.2	0.05	0.07	-	0.096	0.061
98.7	0.41	1.2	0.05	0.07	-	0.161	0.063
130.3	0.41	1.1	0.05	0.07	-	0.125	0.218
157.9	0.43	1.1	0.54	0.17	-	0.094	0.181

NOAA SHIP DISCOVERER

RP-9-DI-84-II

STATION 14

CAST 3

09 MARCH 1984

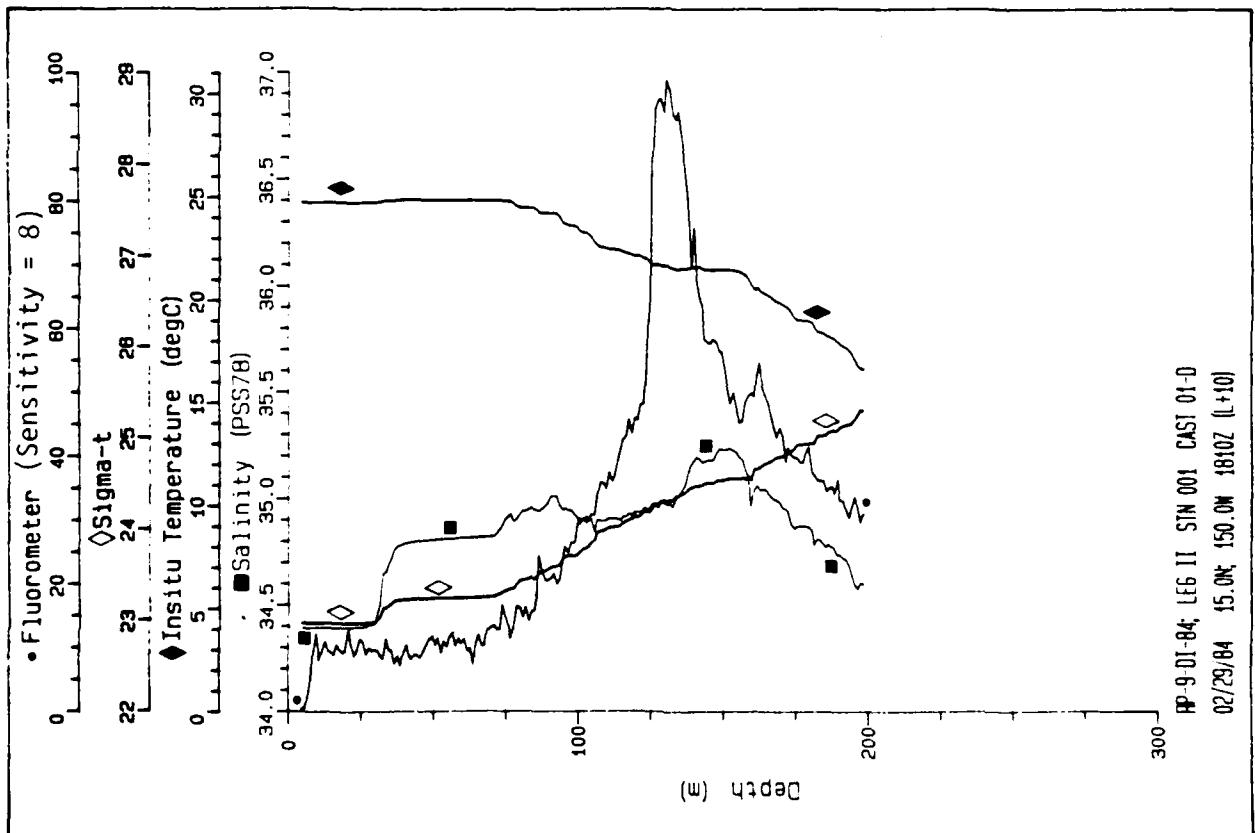
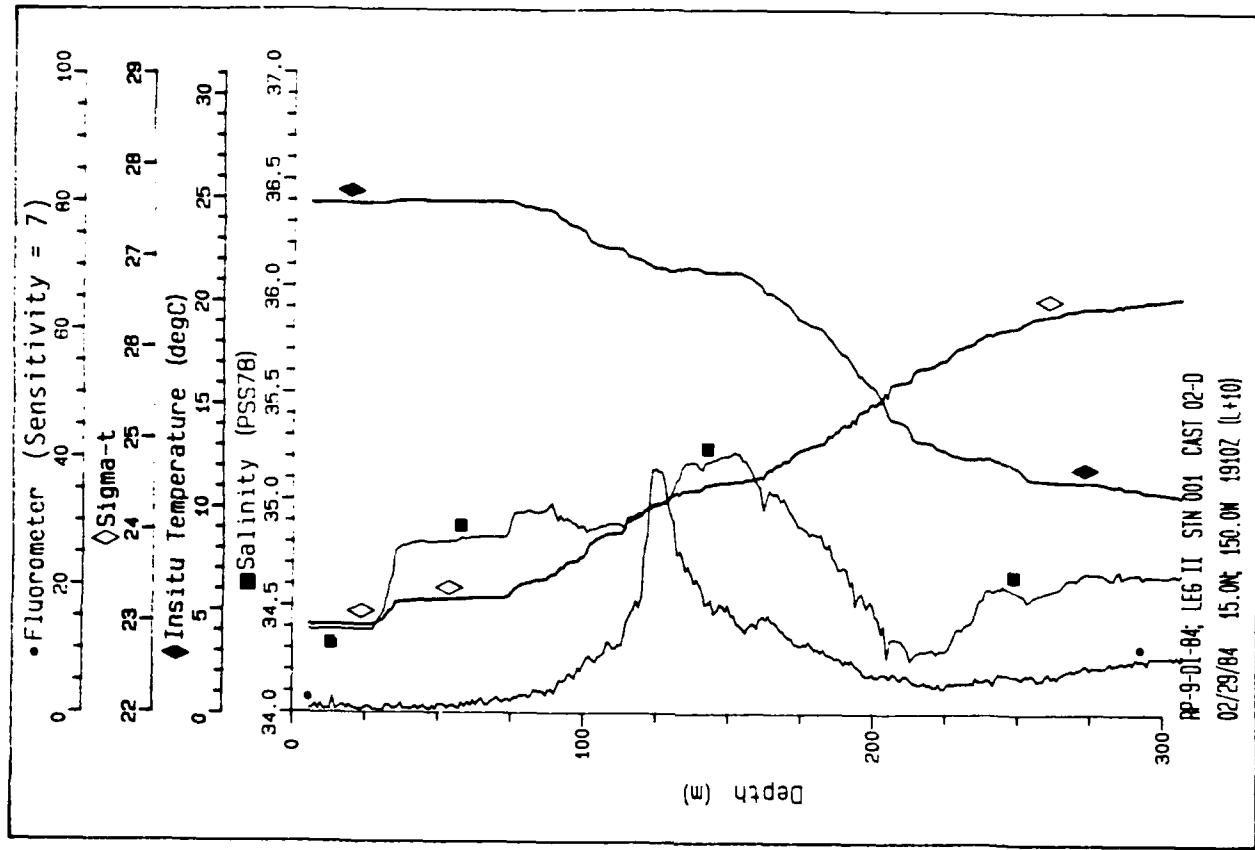
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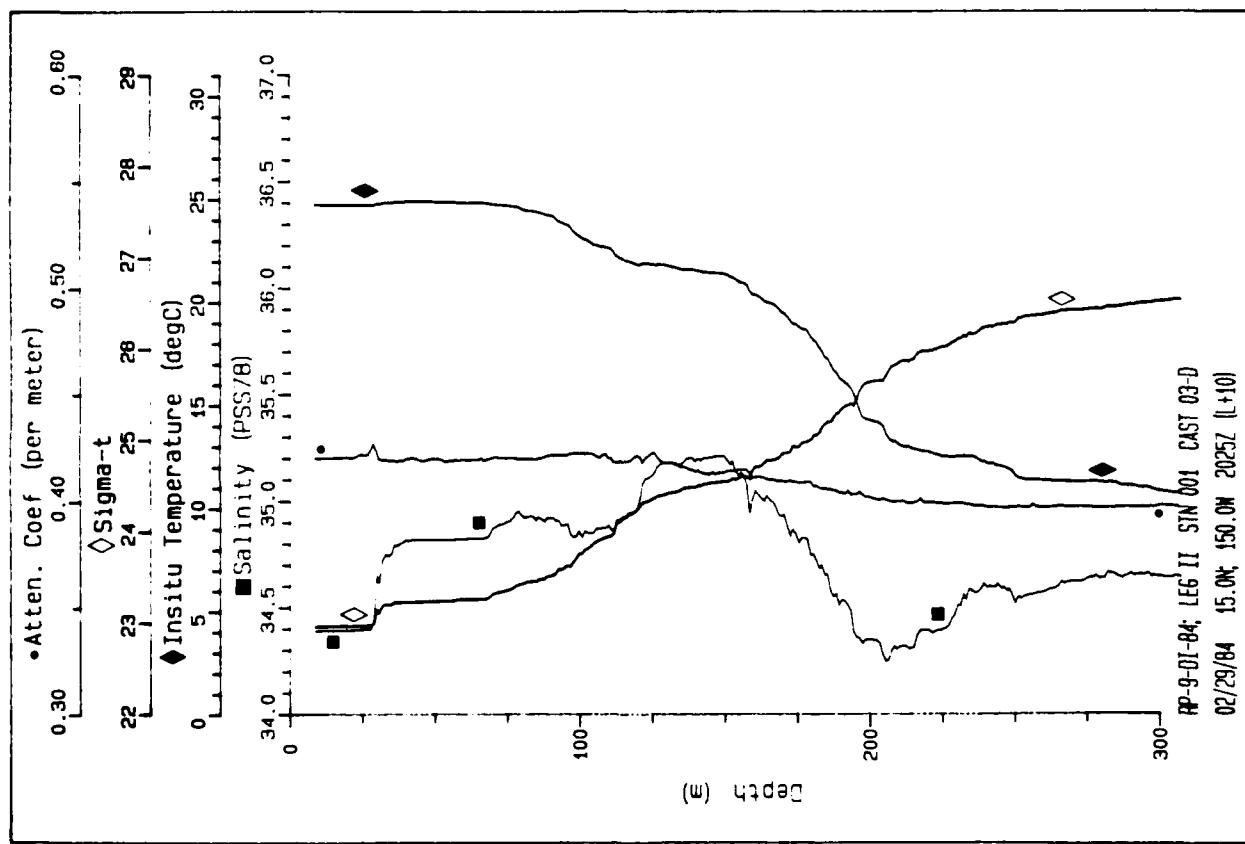
POSITION 15.0 S 150.0 W

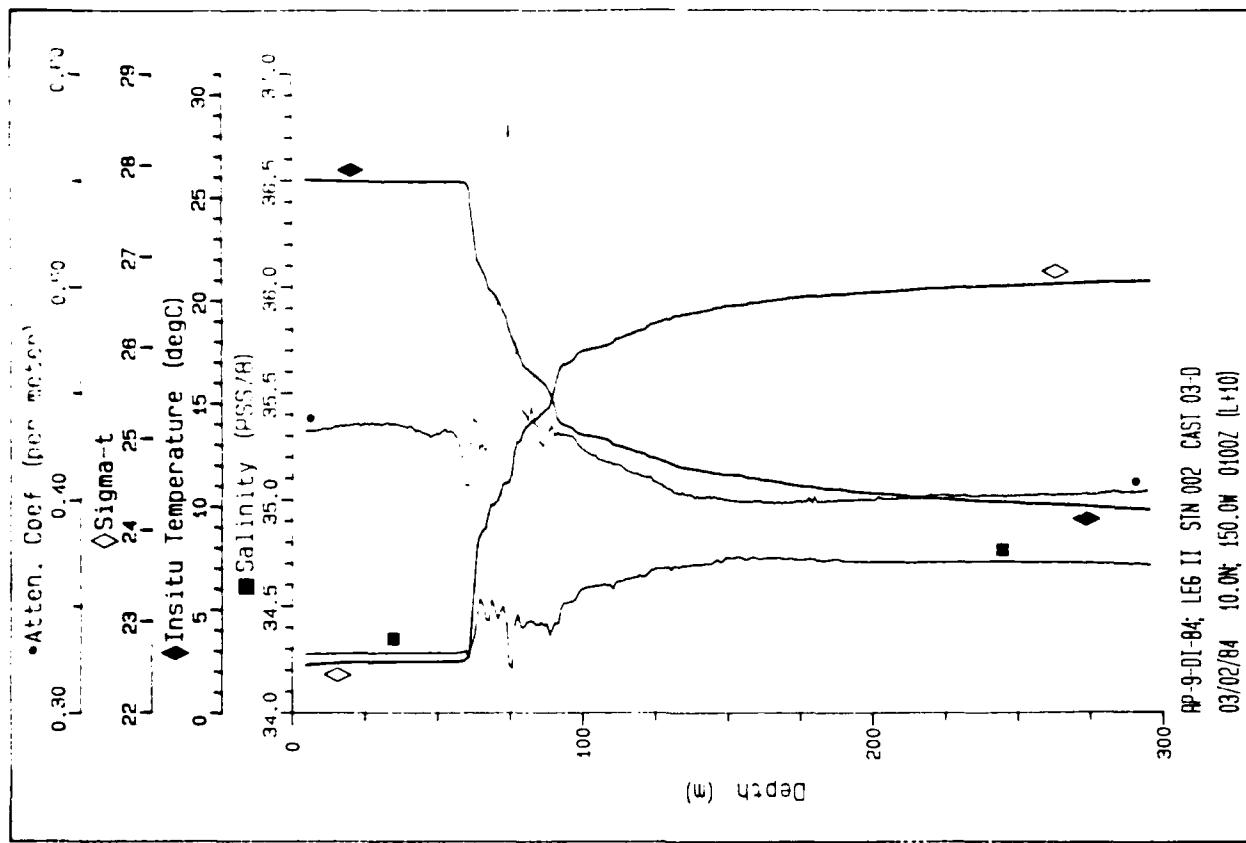
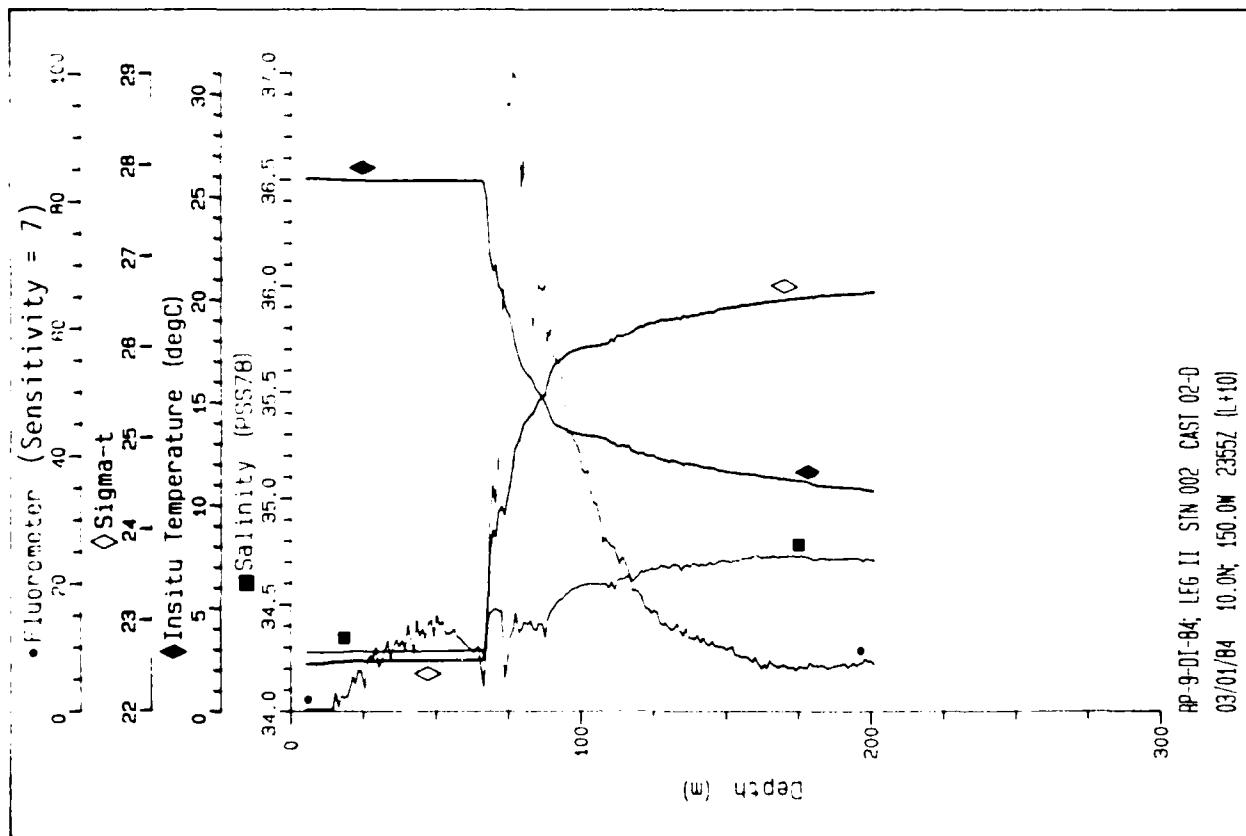
BOTTLE NO.	PRESS dbars	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY o/oo	SIGMA THETA	ATTEN COEFF.
1	8.0	7.9	29.930	29.928	35.558	22.171	0.417
2	45.0	44.7	29.370	29.359	35.582	22.379	0.412
3	85.0	84.3	26.960	26.940	36.120	23.577	0.409
4	143.0	141.9	24.050	24.020	36.174	24.517	0.401
5	185.0	183.5	22.480	22.443	35.982	24.830	0.384
6	240.0	238.1	19.270	19.226	35.742	25.520	0.374
7	273.0	270.8	18.150	18.103	35.425	25.562	0.373
8	375.0	371.8	12.300	12.250	34.806	26.381	0.373
9	462.0	458.0	8.730	8.680	34.542	26.803	0.373
10	565.0	560.0	6.880	6.827	34.486	27.031	0.372
11	658.0	652.0	6.120	6.061	34.473	27.121	0.372
12	756.0	749.0	5.300	5.237	34.476	27.225	0.371
13	950.0	940.8	4.280	4.206	34.509	27.366	0.370
14	1190.0	1177.8	3.390	3.304	34.551	27.490	0.370
15	1440.0	1424.4	2.810	2.709	34.588	27.573	0.370
16	1938.0	1914.9	2.160	2.026	34.635	27.666	0.370
17	2439.0	2407.3	1.910	1.737	34.664	27.710	0.371
18	2756.0	2718.2	1.710	1.511	34.678	27.736	0.371

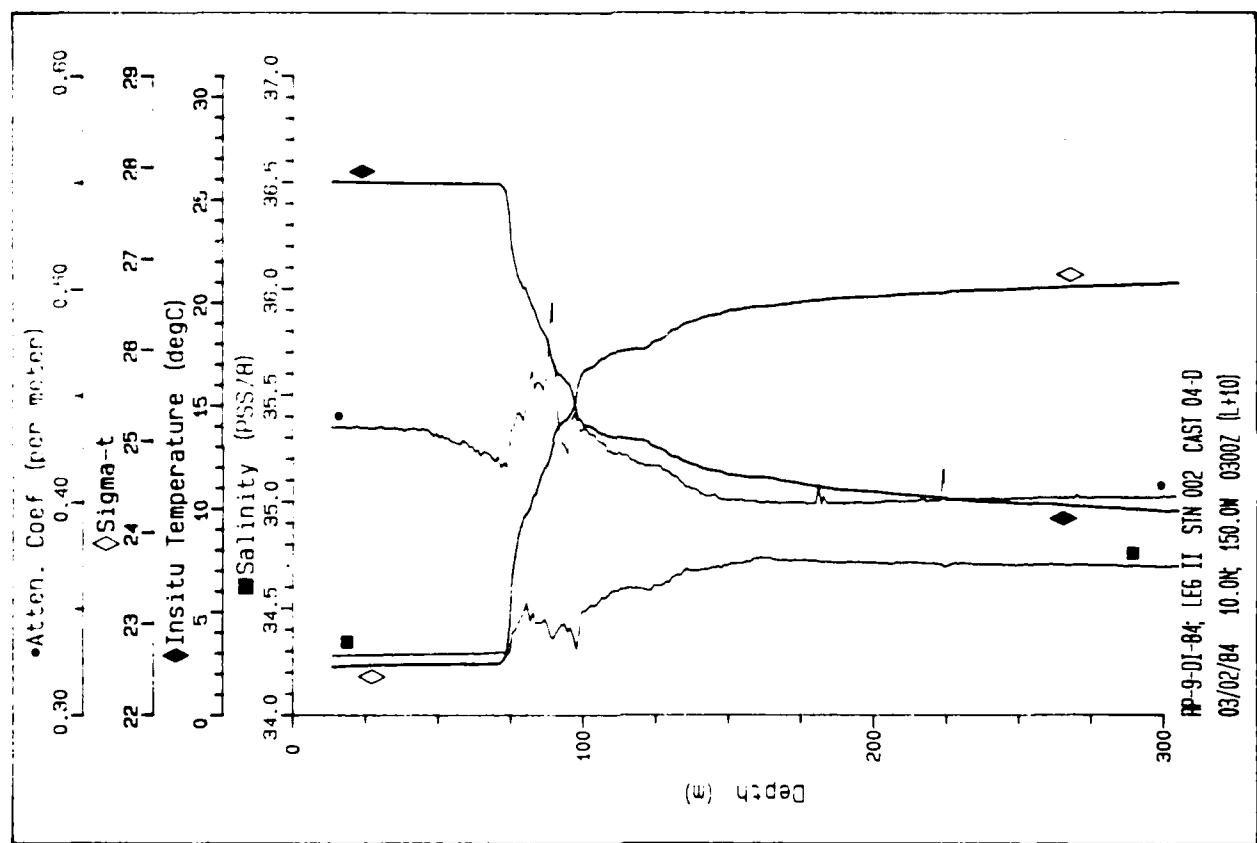
DEPTH M	PHOSPHATE uM/kg	SILICATE uM/kg	NITRATE uM/kg	NITRITE uM/kg	TSM ug/L	CHLOROPHYLL ug/L	PHAEOPHYTIN ug/L
7.9	0.12	1.2	0.01	-	35.2	-	-
44.7	0.12	1.1	0.00	-	62.4	-	-
84.3	0.14	1.0	0.00	-	36.6	-	-
141.9	0.16	1.0	0.00	-	-	-	-
183.5	0.21	1.0	1.31	-	47.6	-	-
238.1	0.32	1.1	2.94	-	-	-	-
270.8	0.46	2.0	5.40	-	18.2	-	-
371.8	1.27	9.5	17.50	-	-	-	-
458.0	1.88	21.1	28.55	-	10.1	-	-
560.0	2.02	29.0	31.60	-	-	-	-
652.0	2.09	36.1	33.04	-	14.5	-	-
749.0	2.15	46.8	34.23	-	-	-	-
940.8	2.20	61.0	33.40	-	-	-	-
1177.8	2.33	82.5	35.90	-	-	-	-
1424.4	2.33	94.3	36.59	-	-	-	-
1914.9	2.28	108.2	36.03	-	-	-	-
2407.3	2.28	114.6	36.45	-	-	-	-
2718.2	2.28	113.8	35.79	-	-	-	-

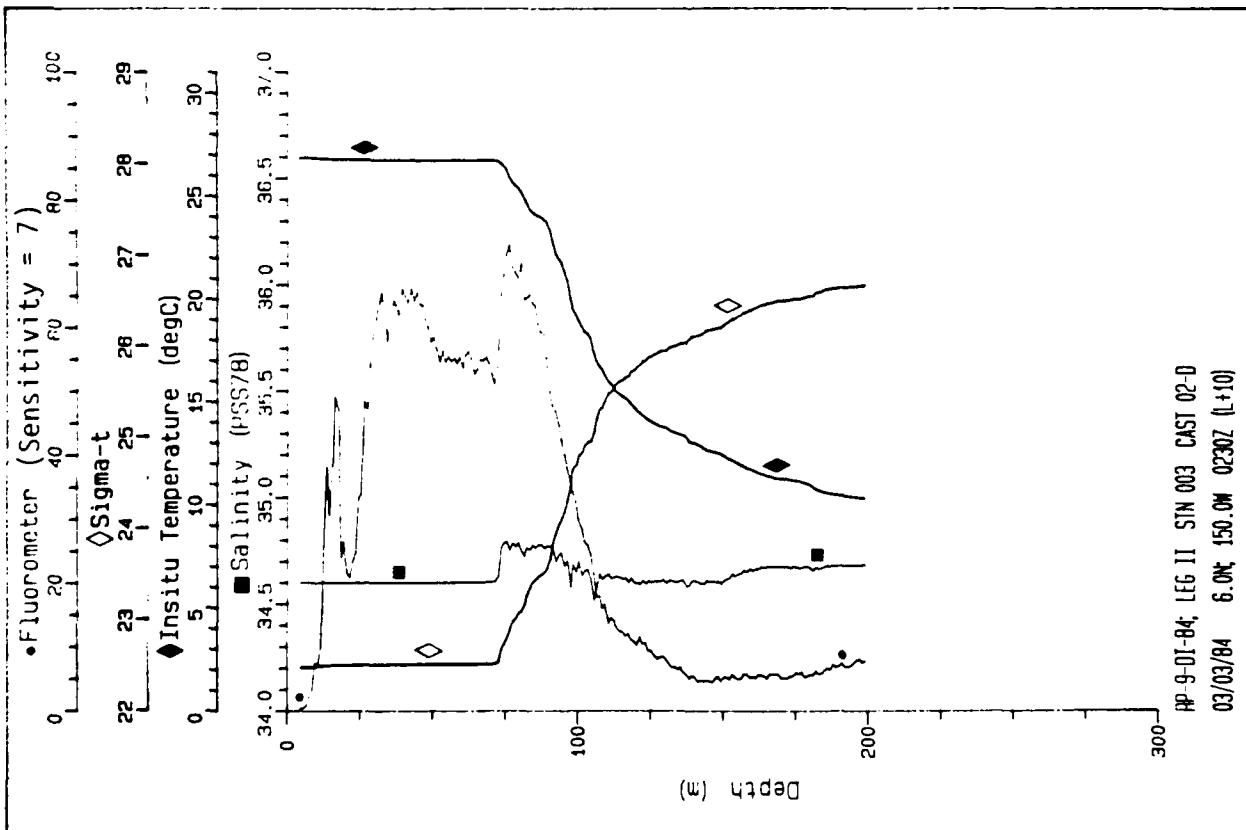
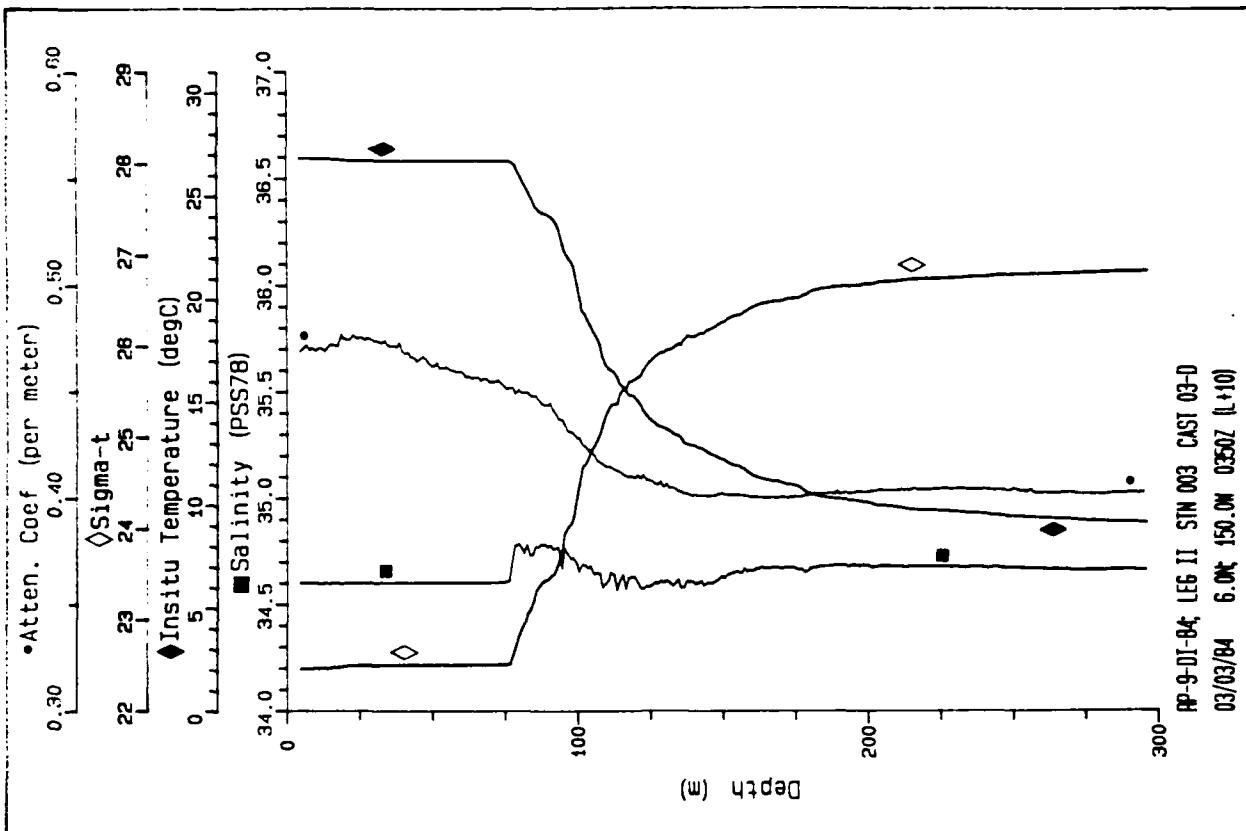
CONDUCTIVITY, TEMPERATURE, DEPTH, (CTD), OPTICAL SENSOR PROFILES

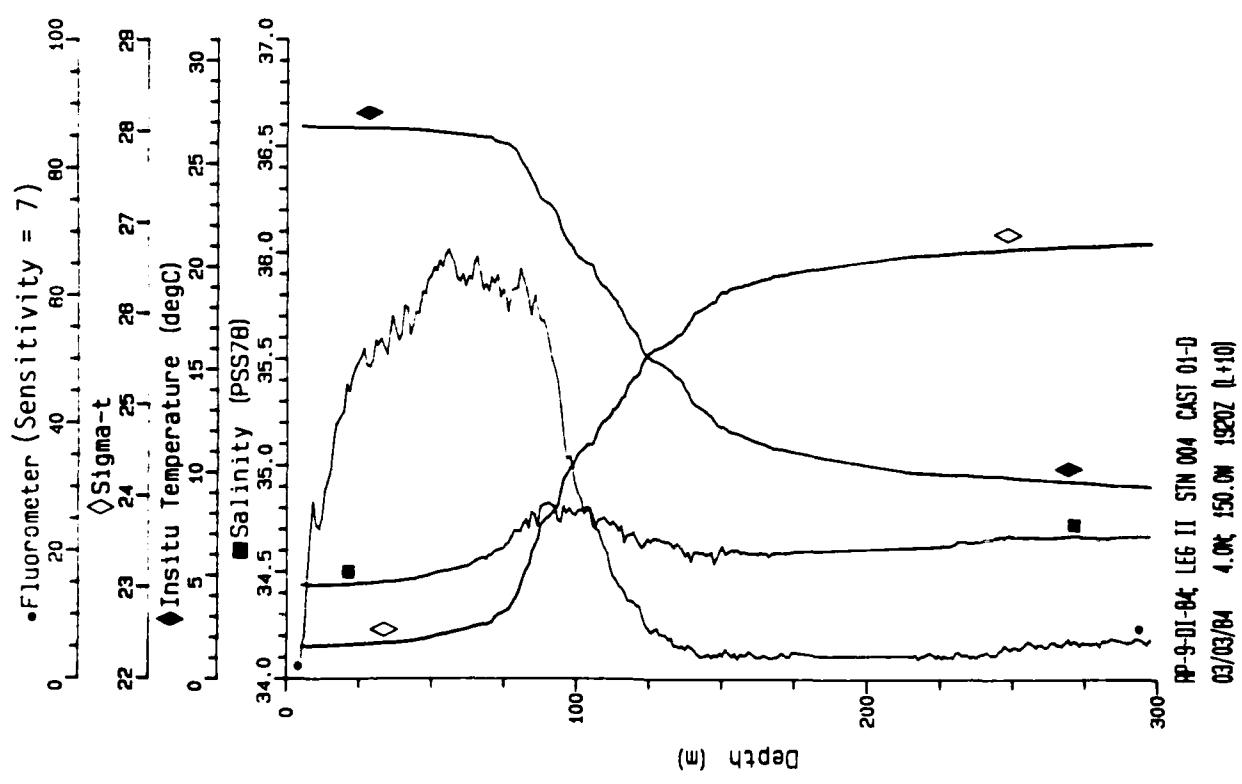




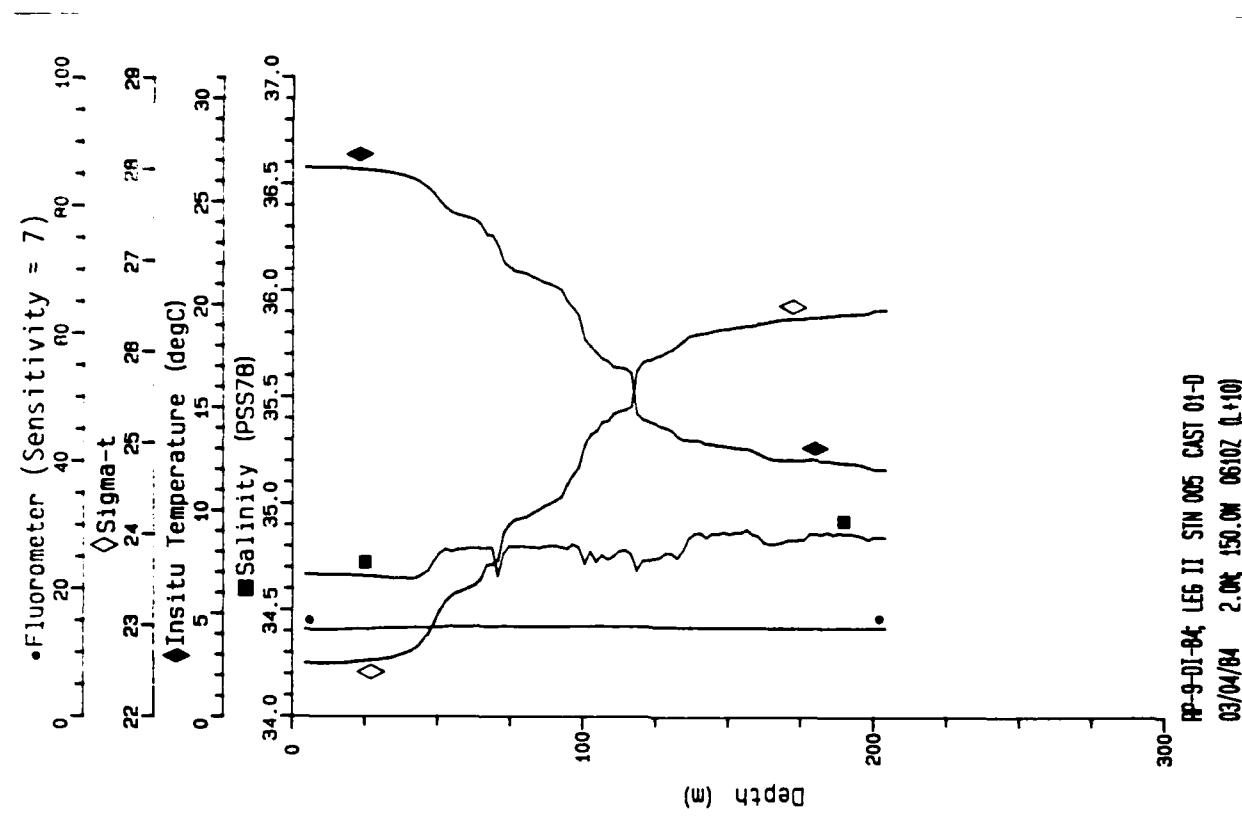




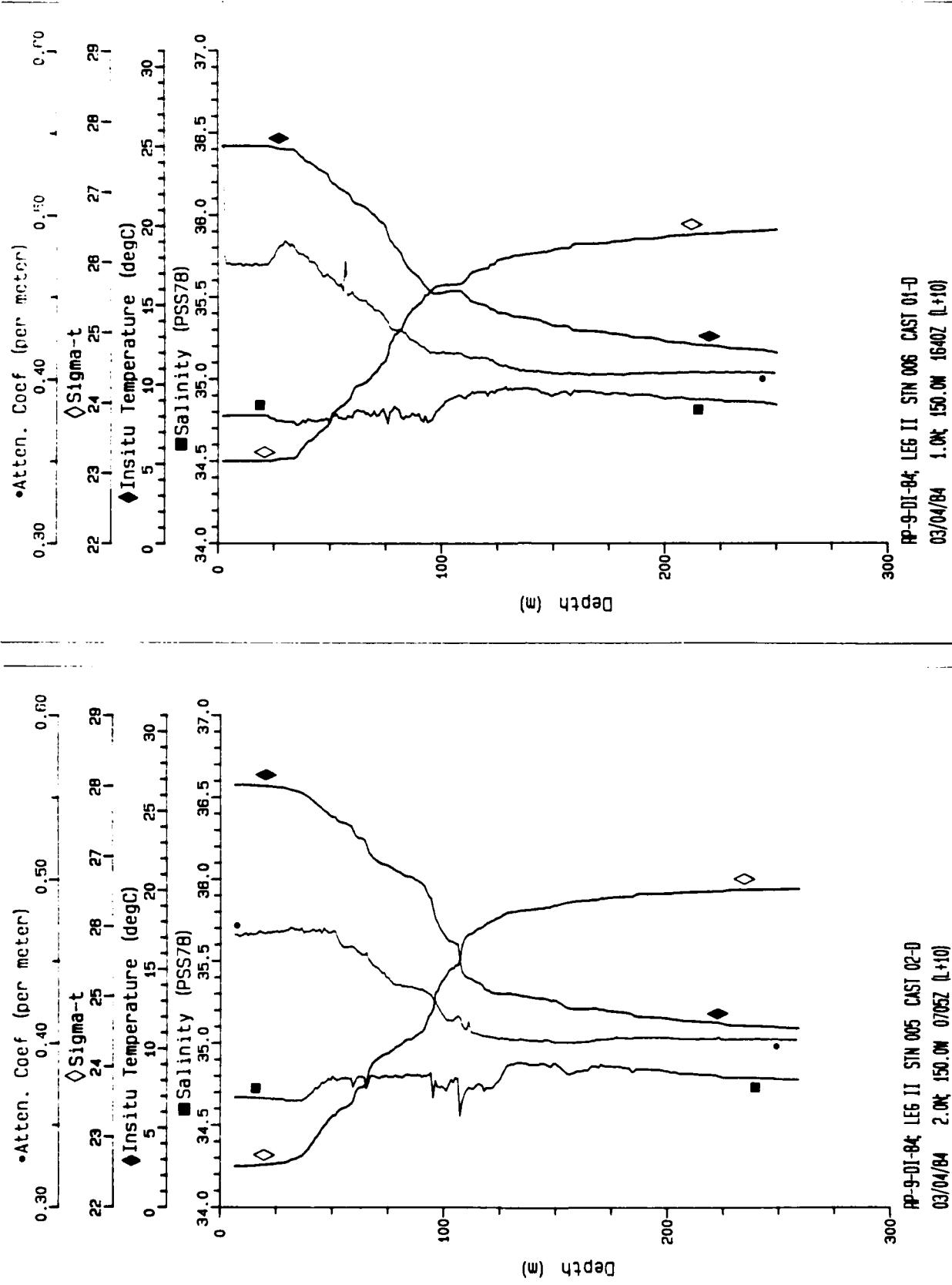


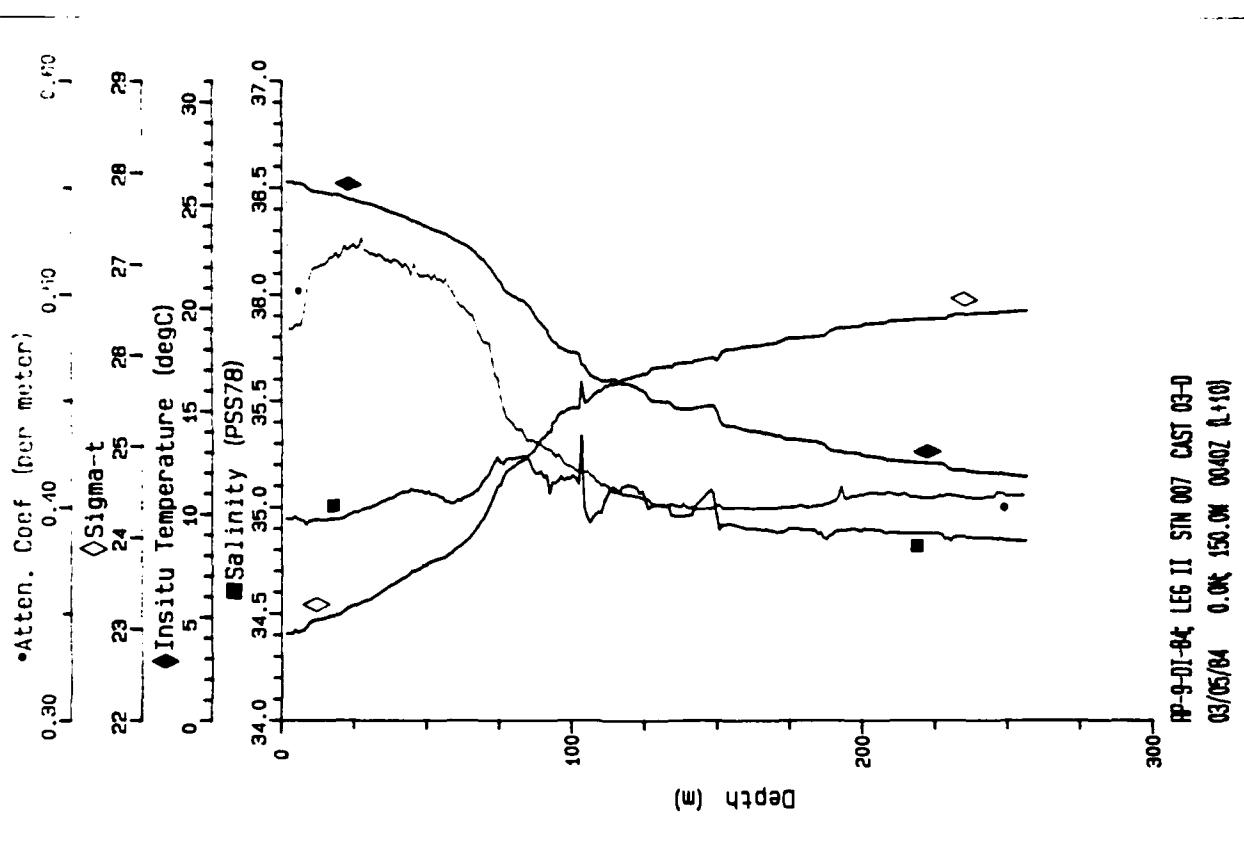
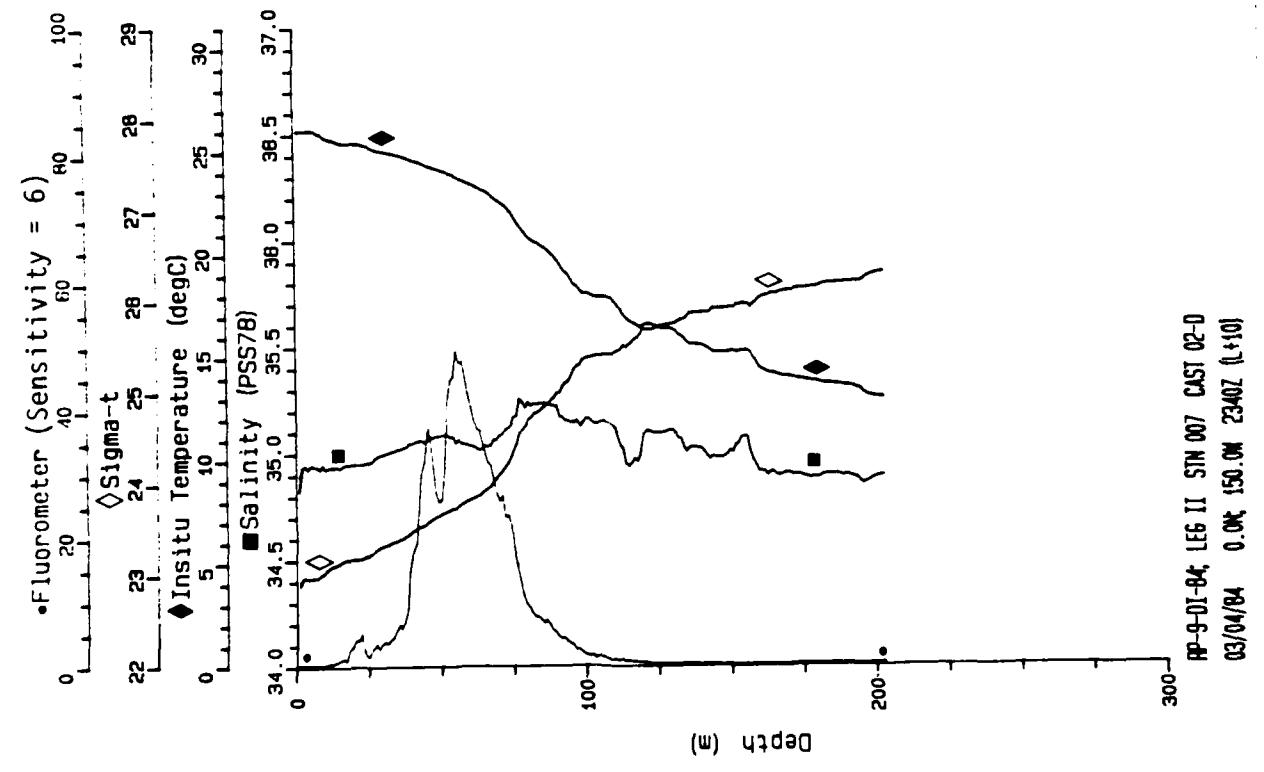


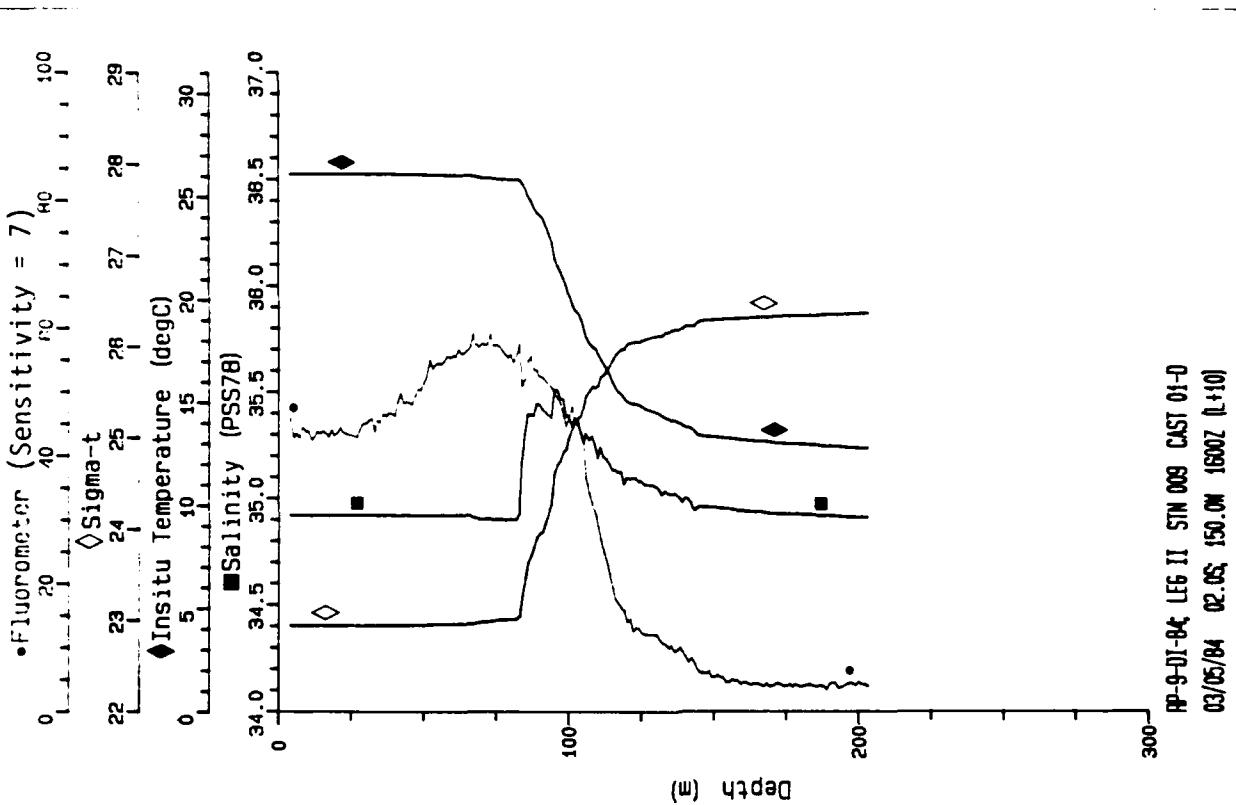
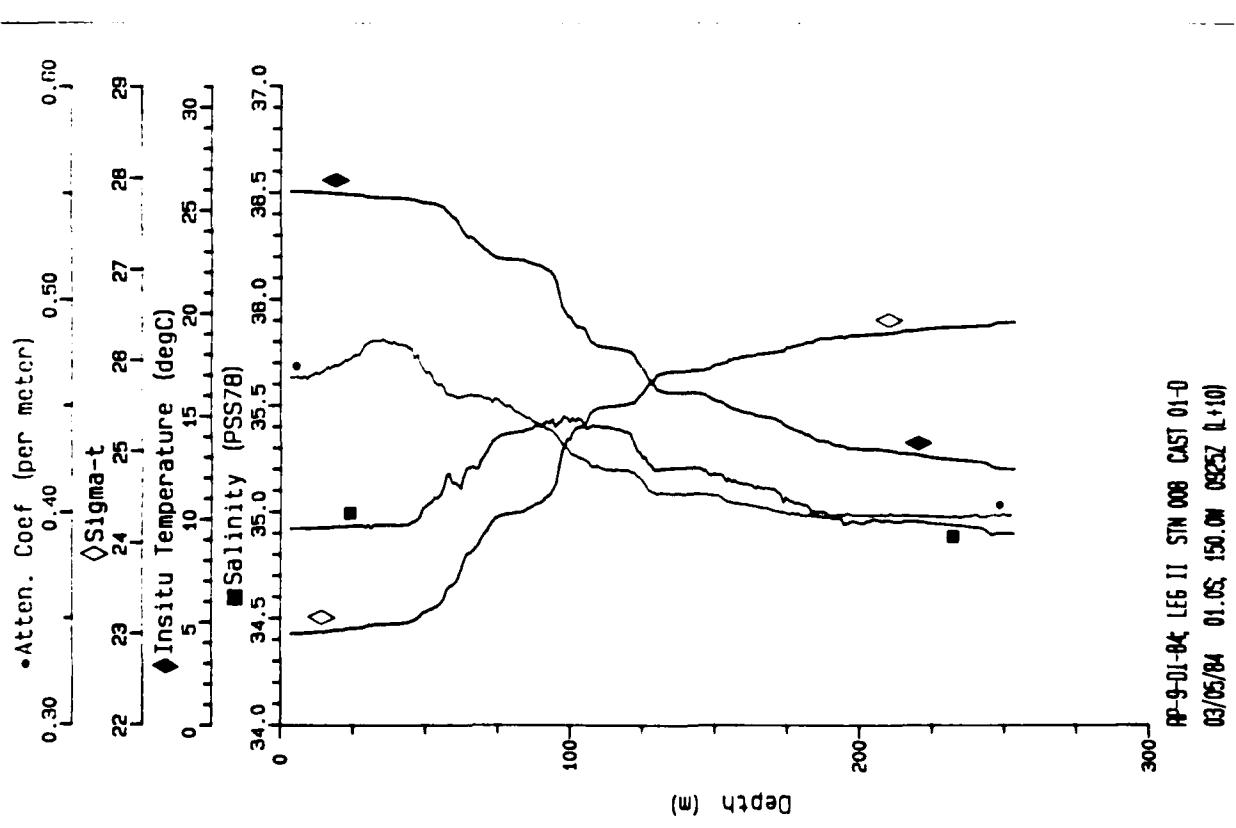
IP-9-II-04 LEG II STN 004 CAST 01-D
03/03/84 4:00 150.0W 1920Z (L+10)

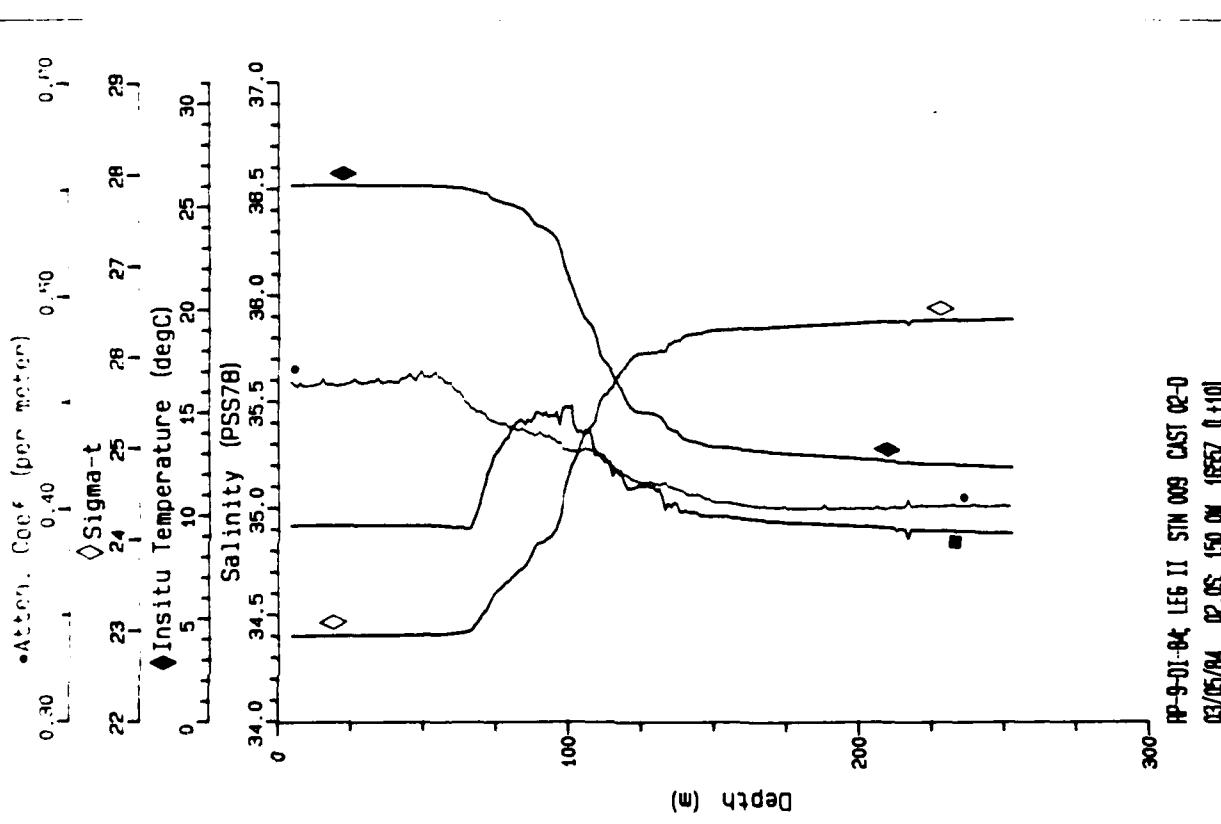
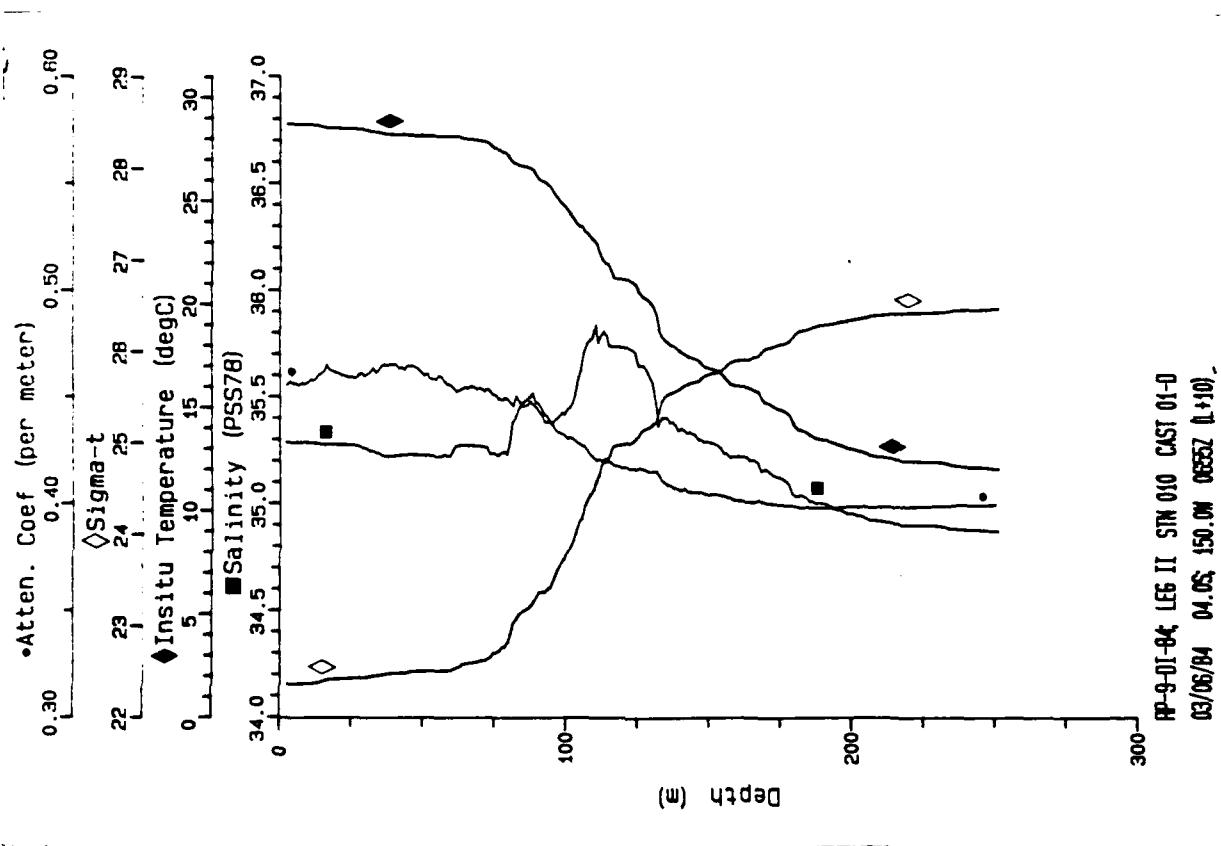


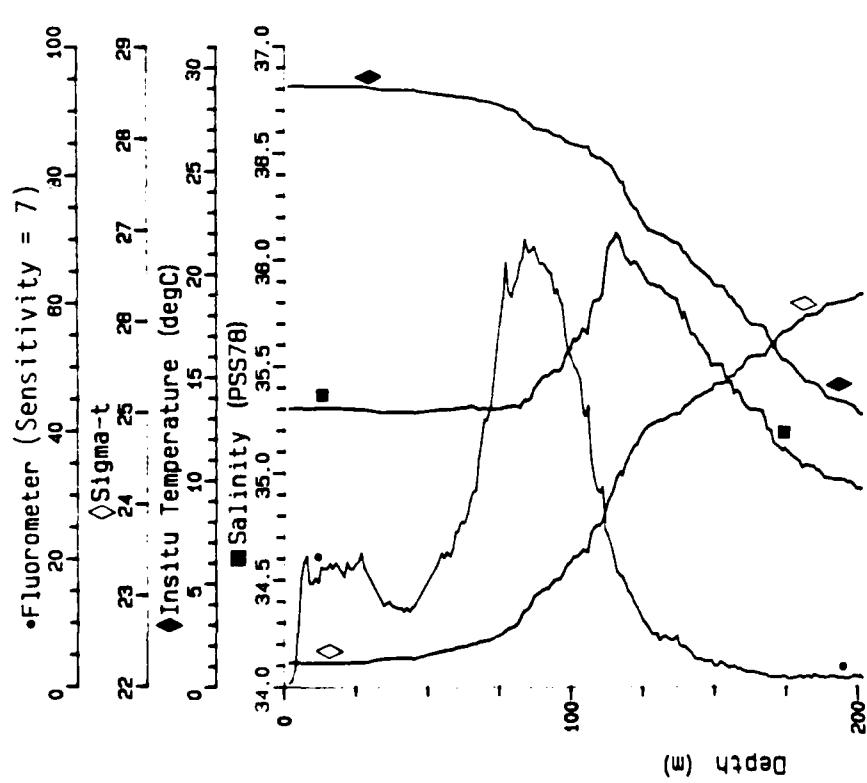
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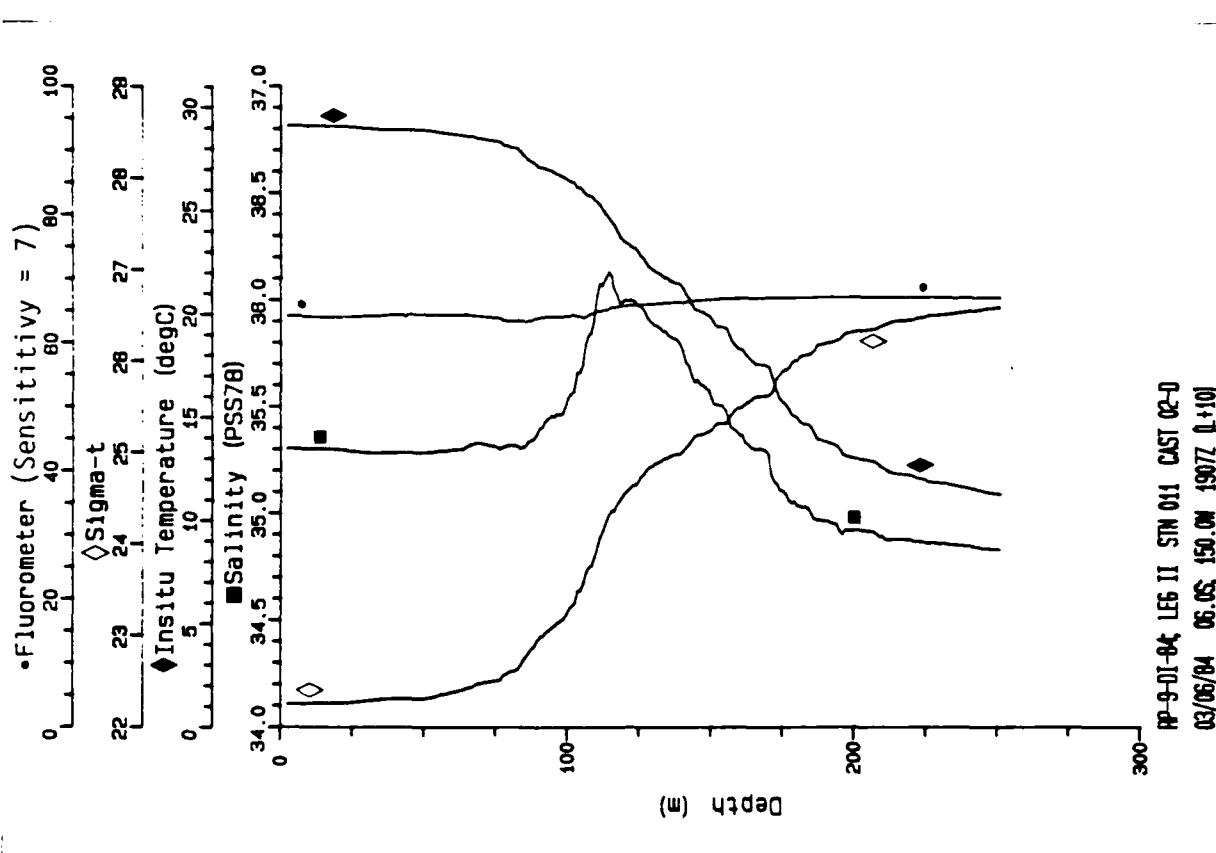




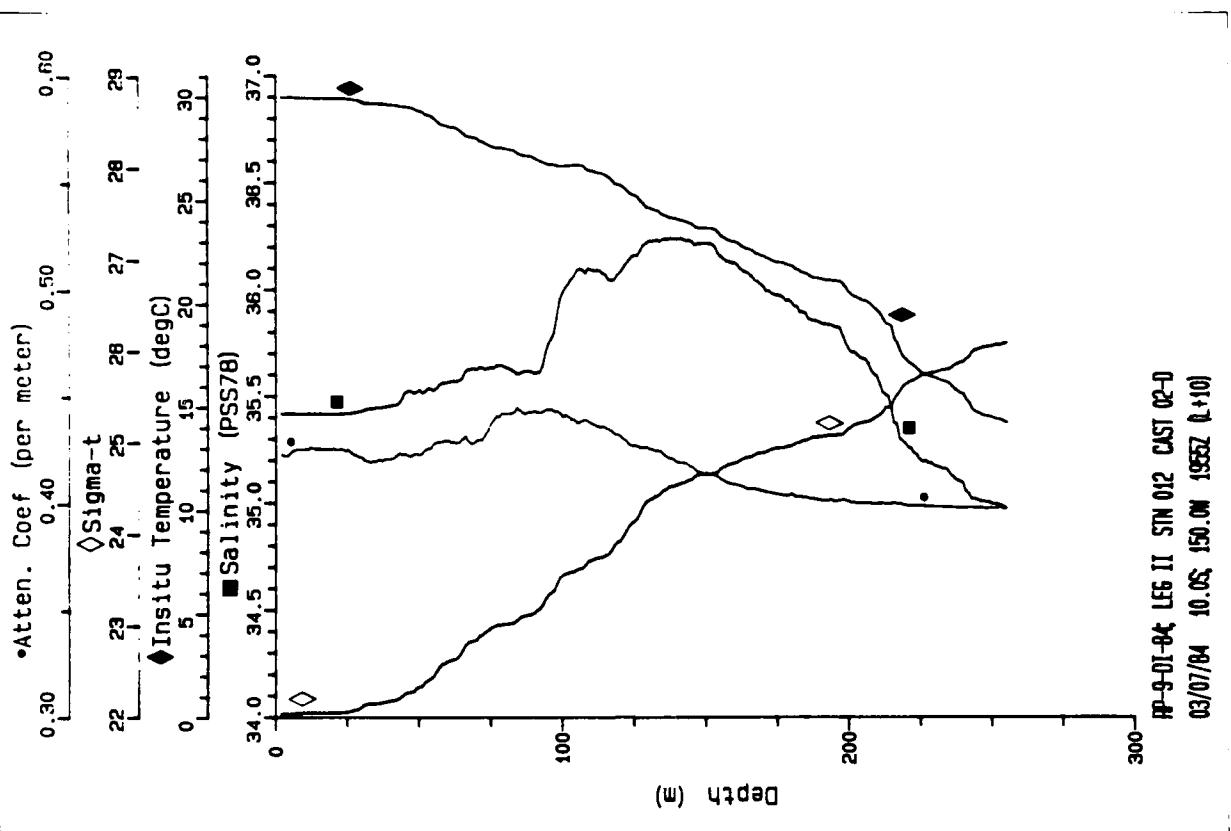
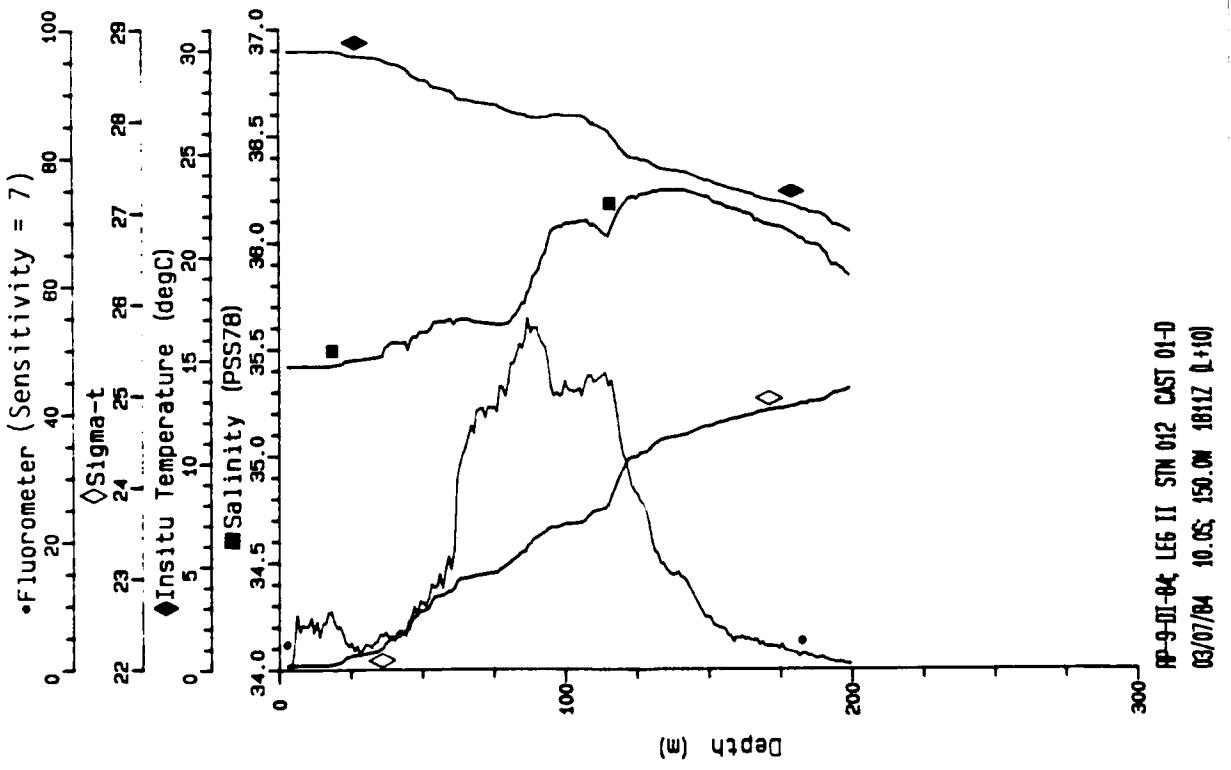


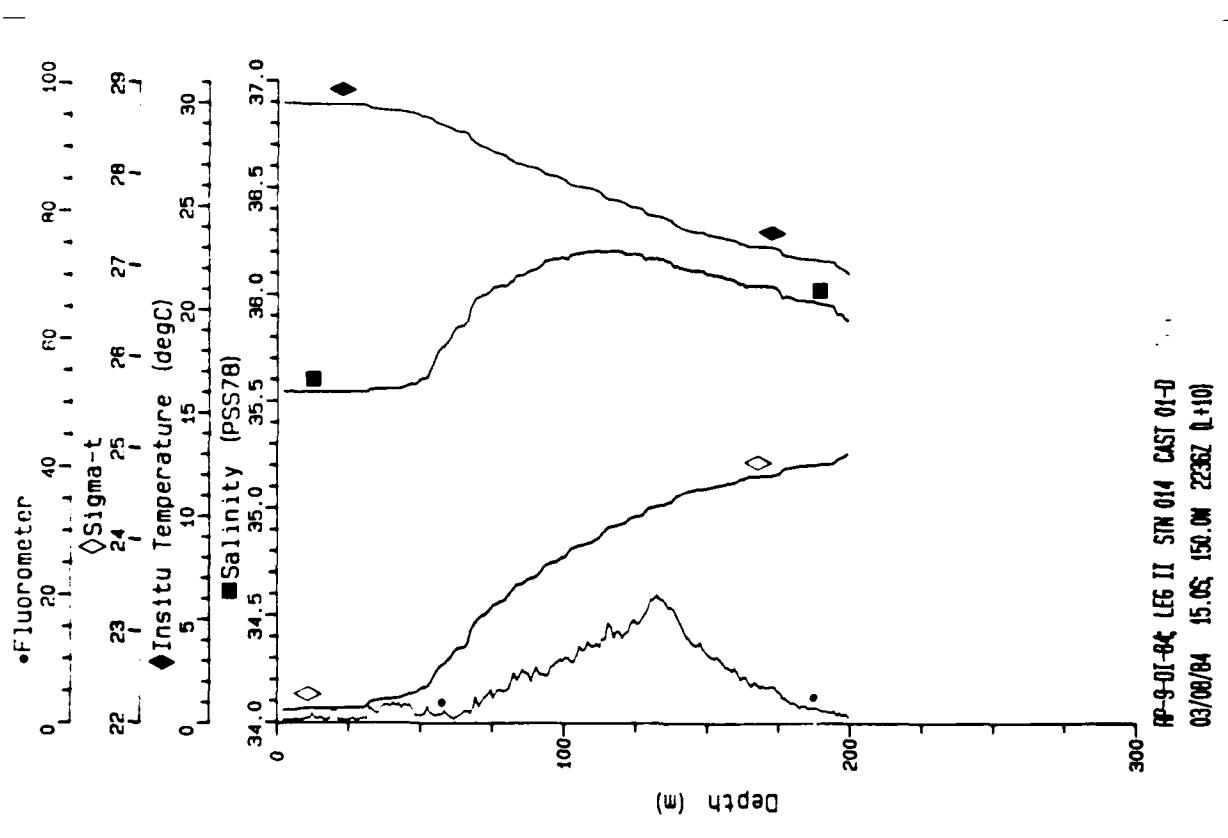
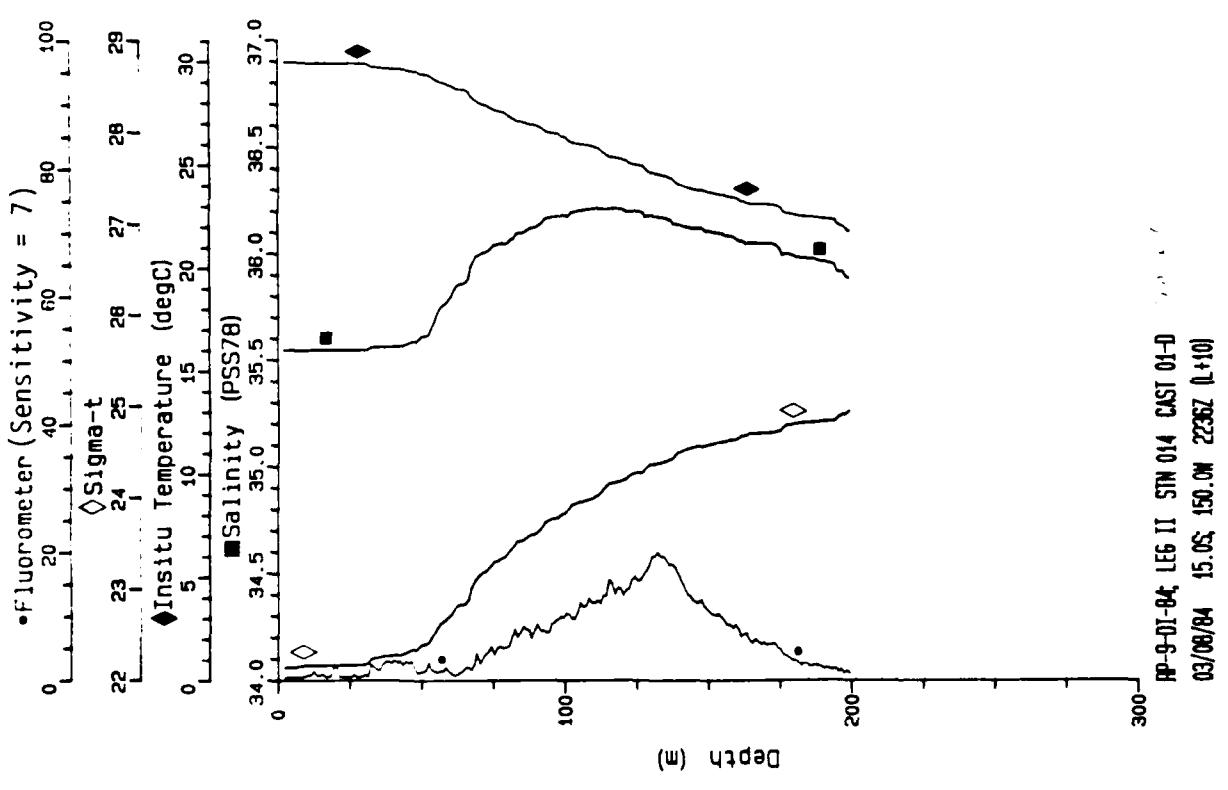


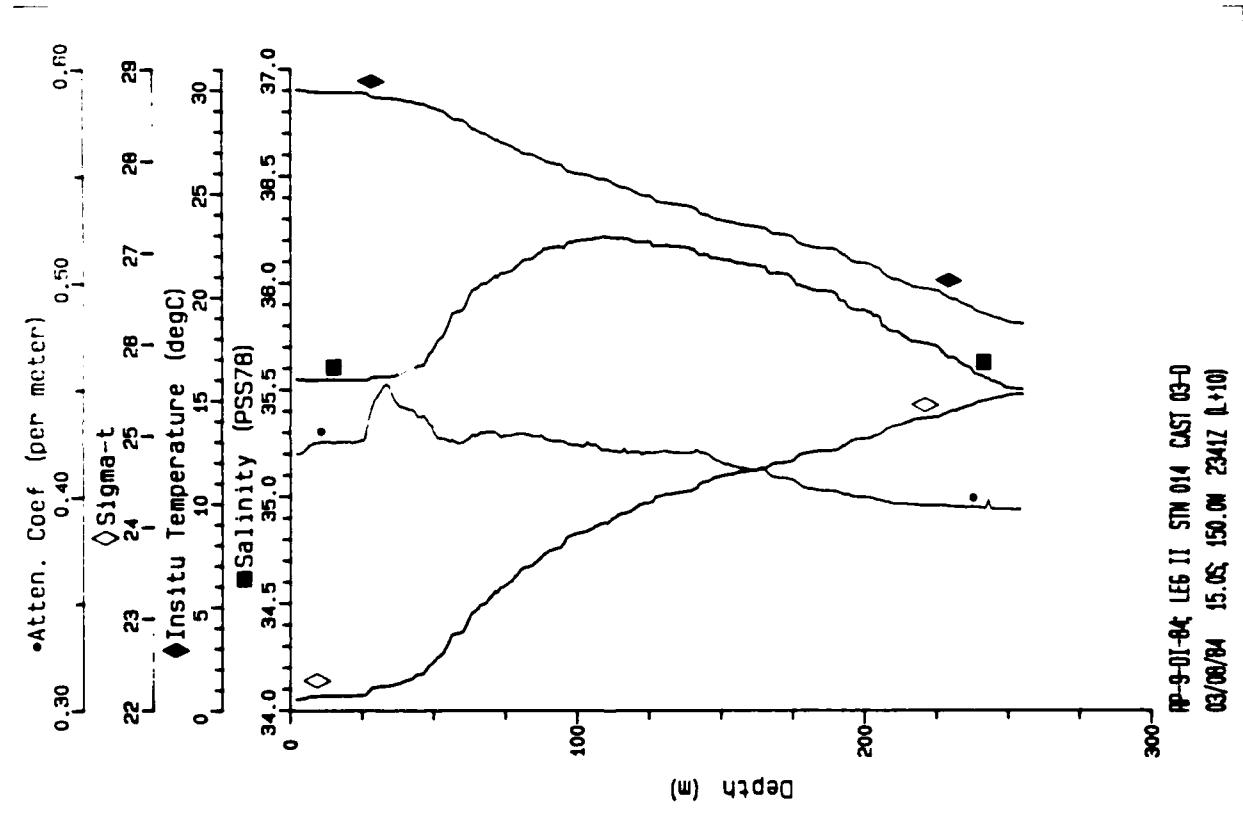
RP-9-01-04 LEG II STN 011 CAST 01-0
03/06/04 06:05 150.0W 190.7T [+10]



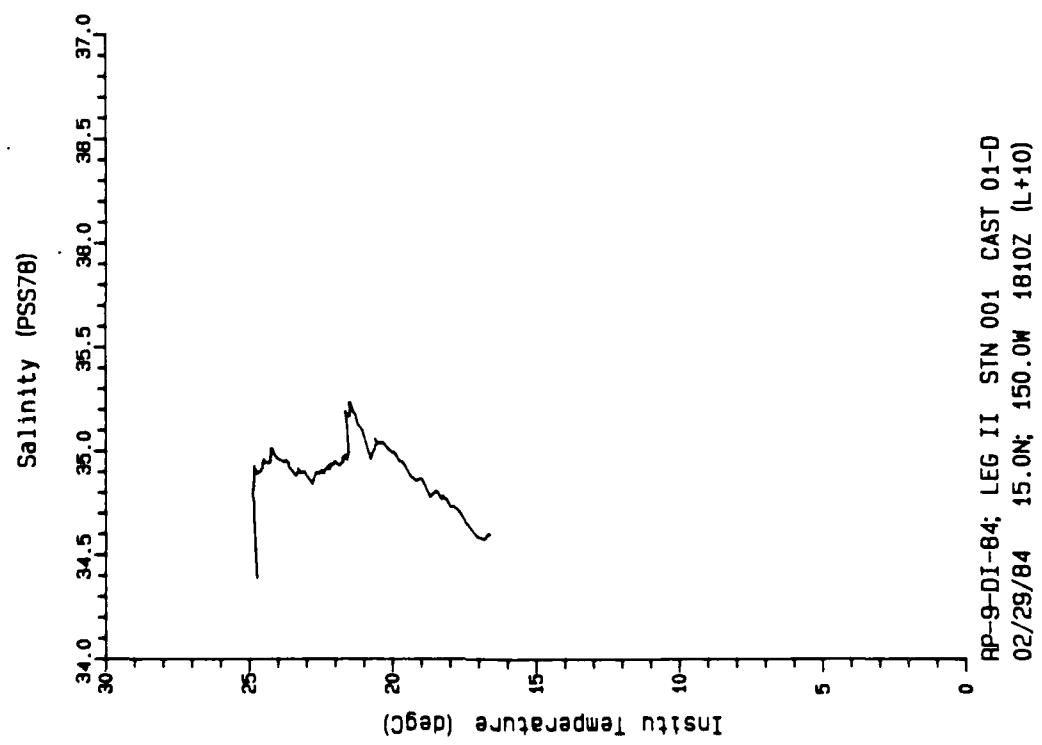
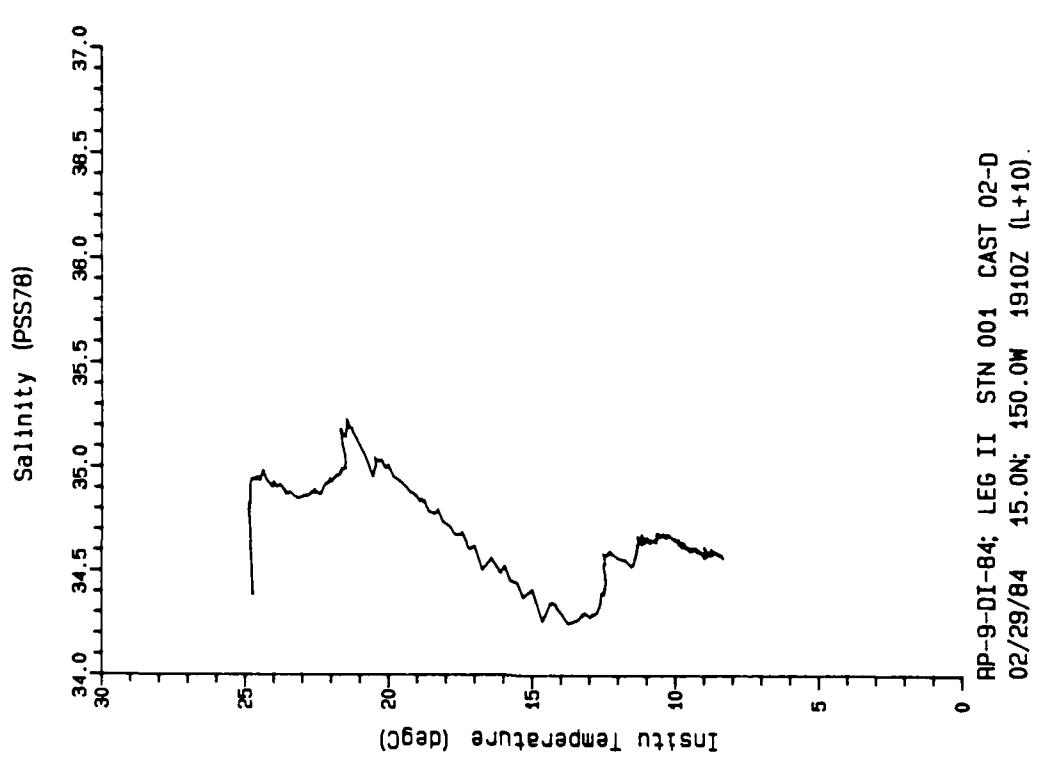
RP-9-01-04 LEG II STN 011 CAST 02-0
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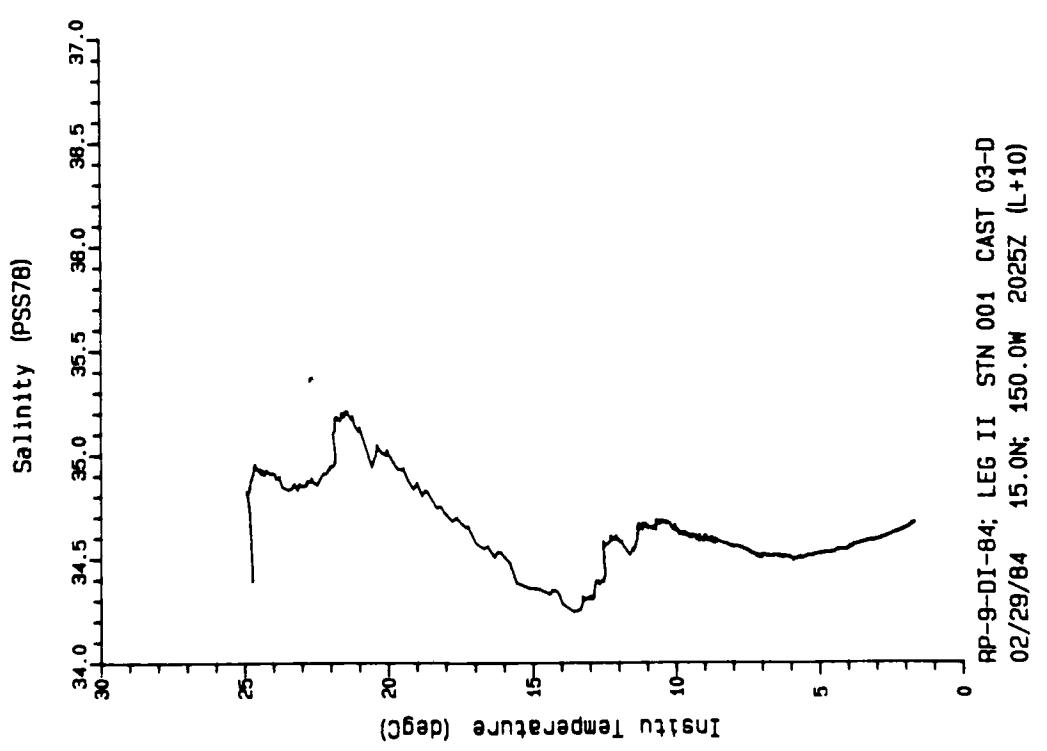
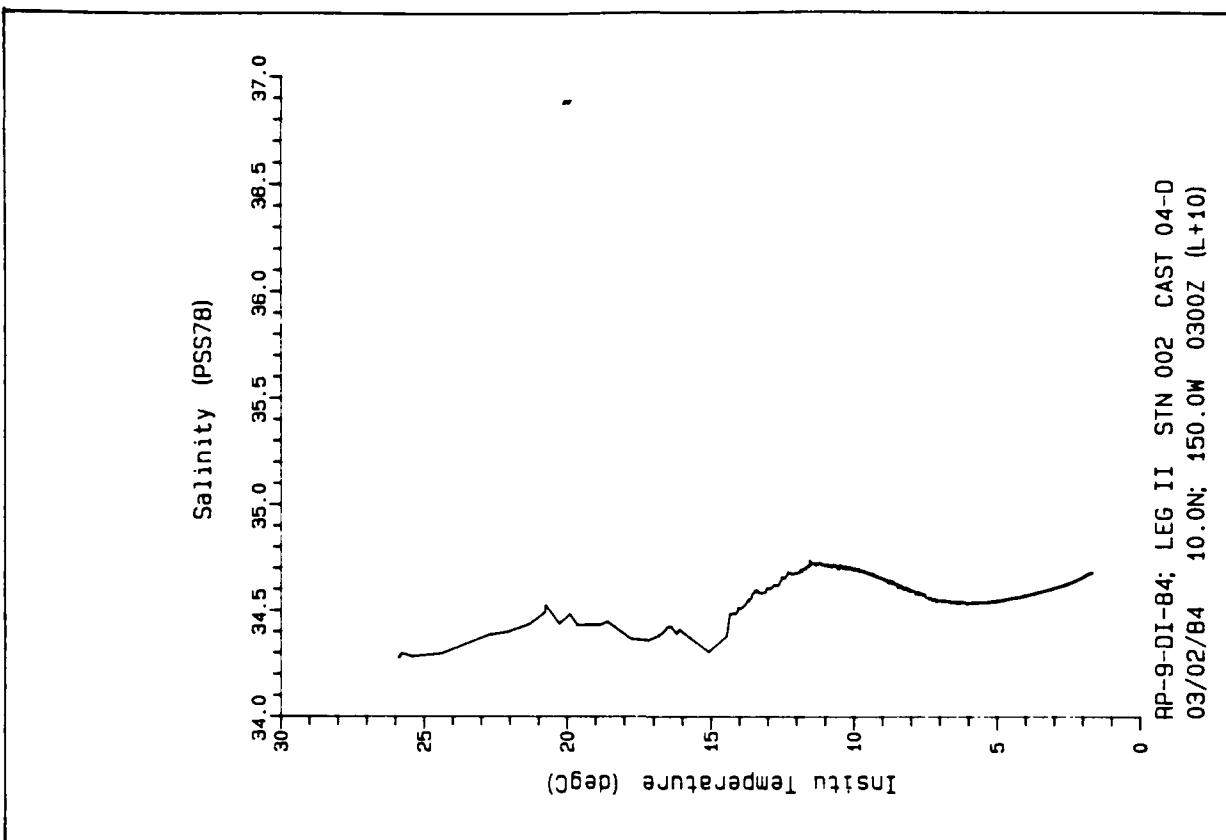


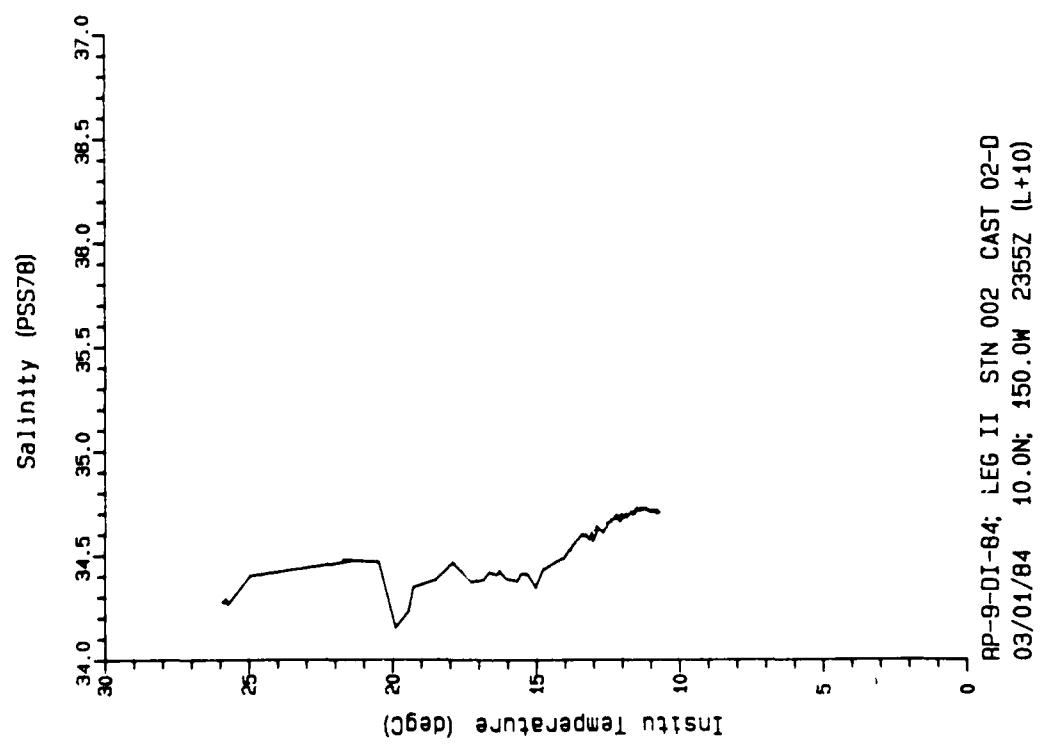
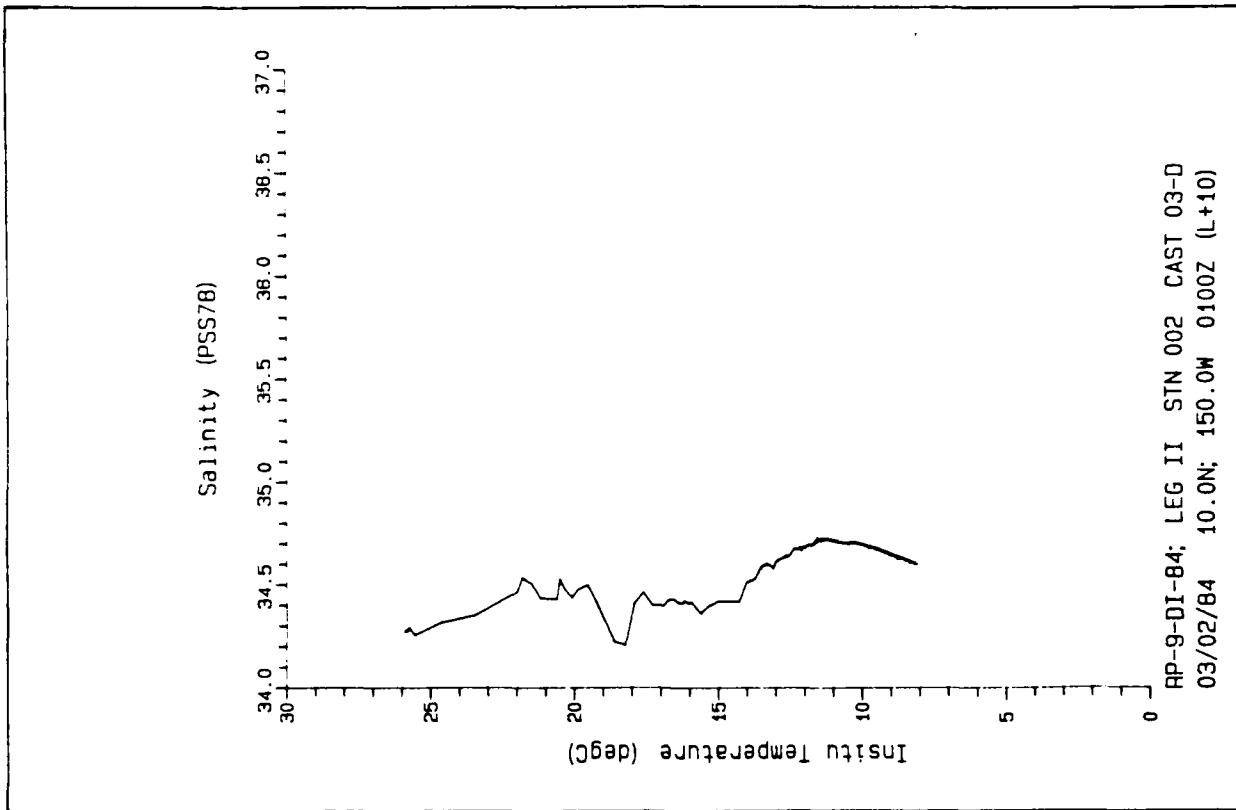


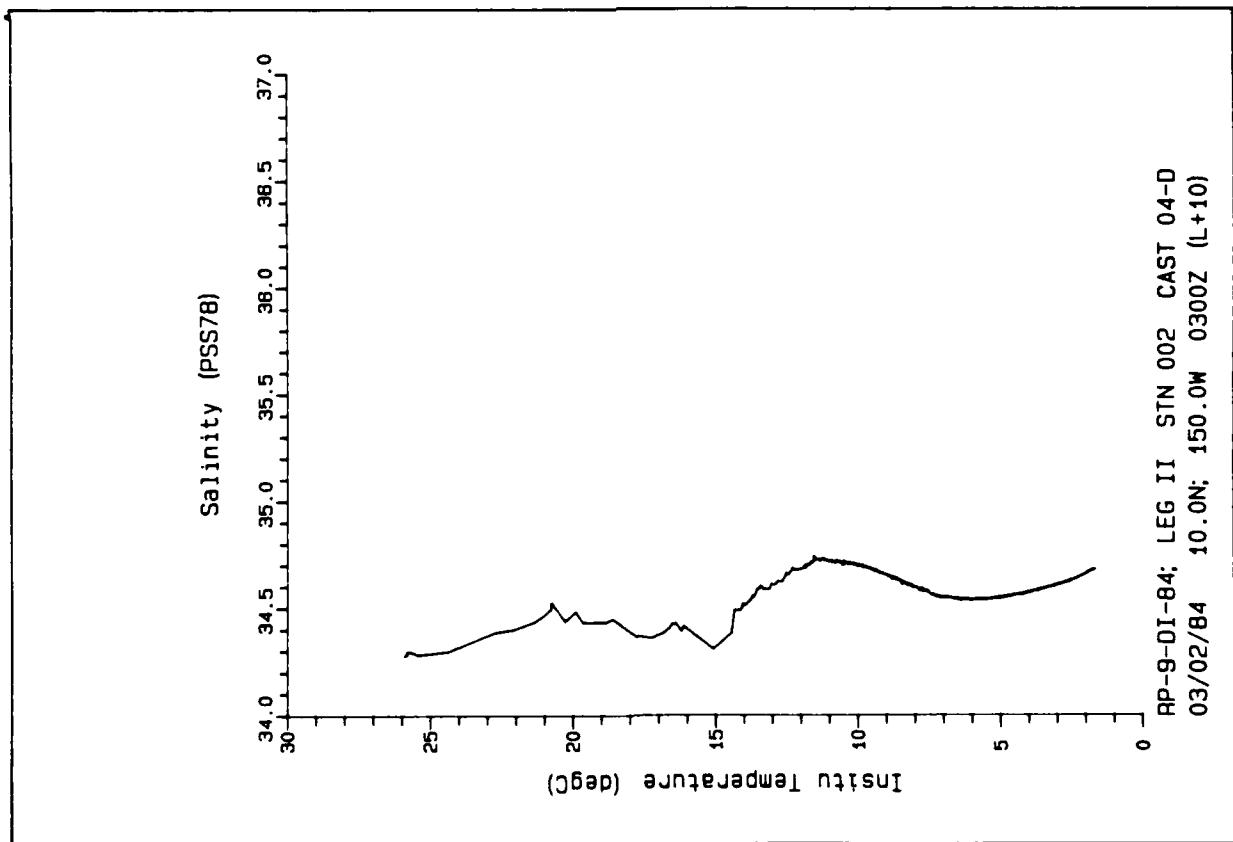
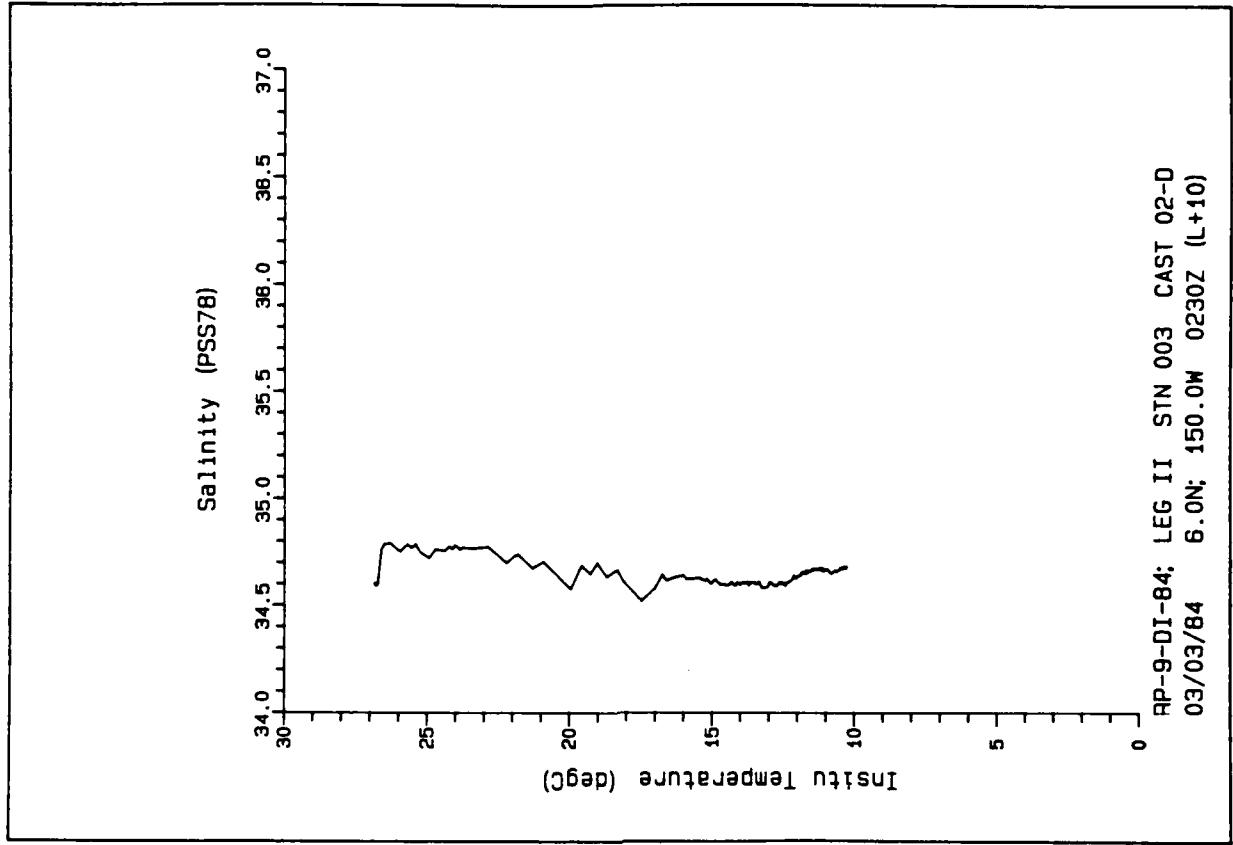


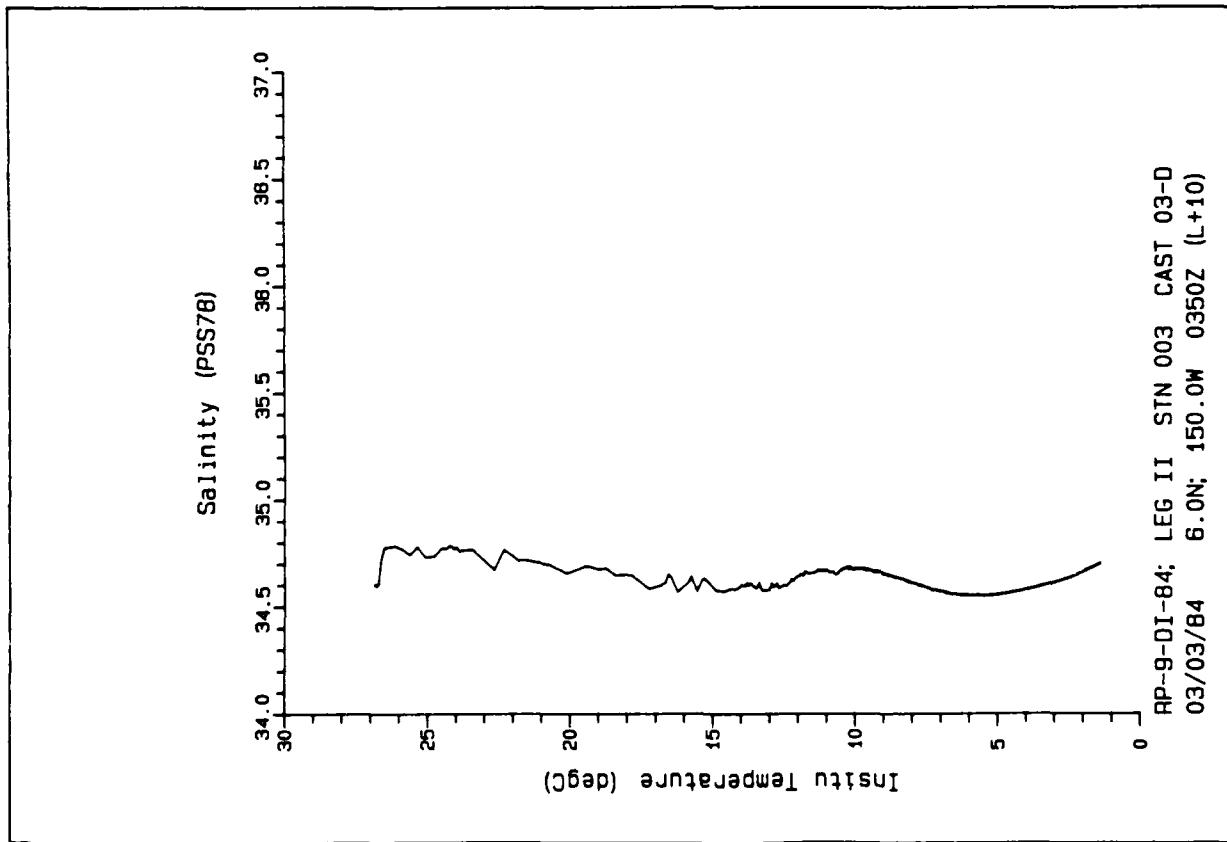
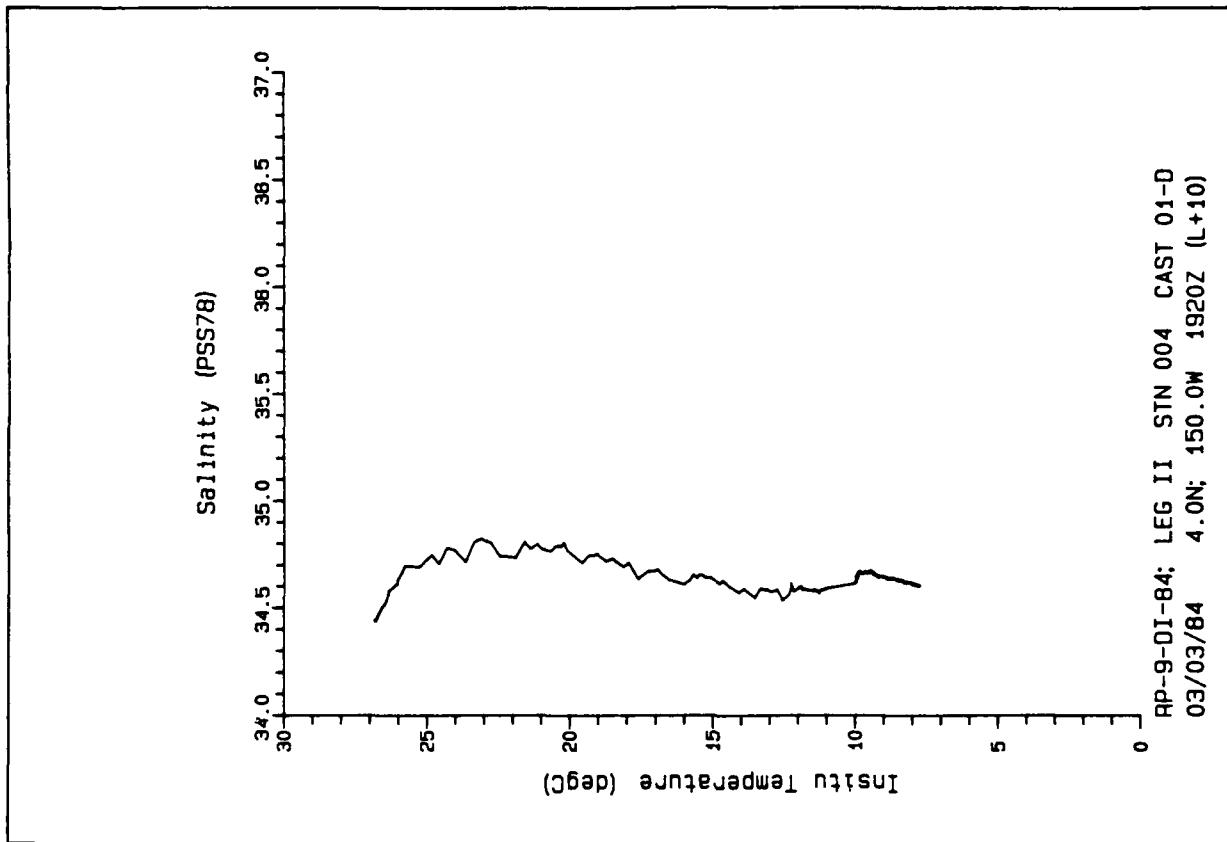
TEMPERATURE - SALINITY (T-S) DIAGRAMS

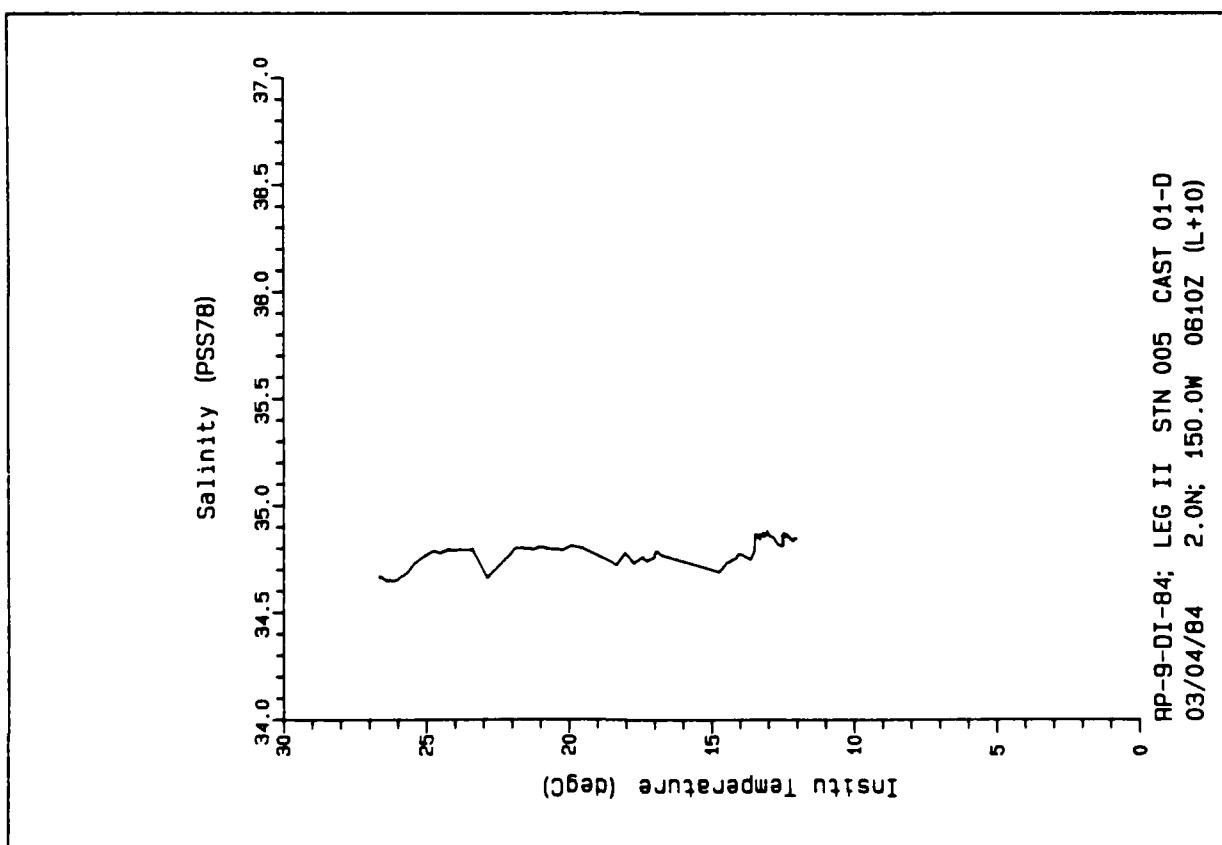
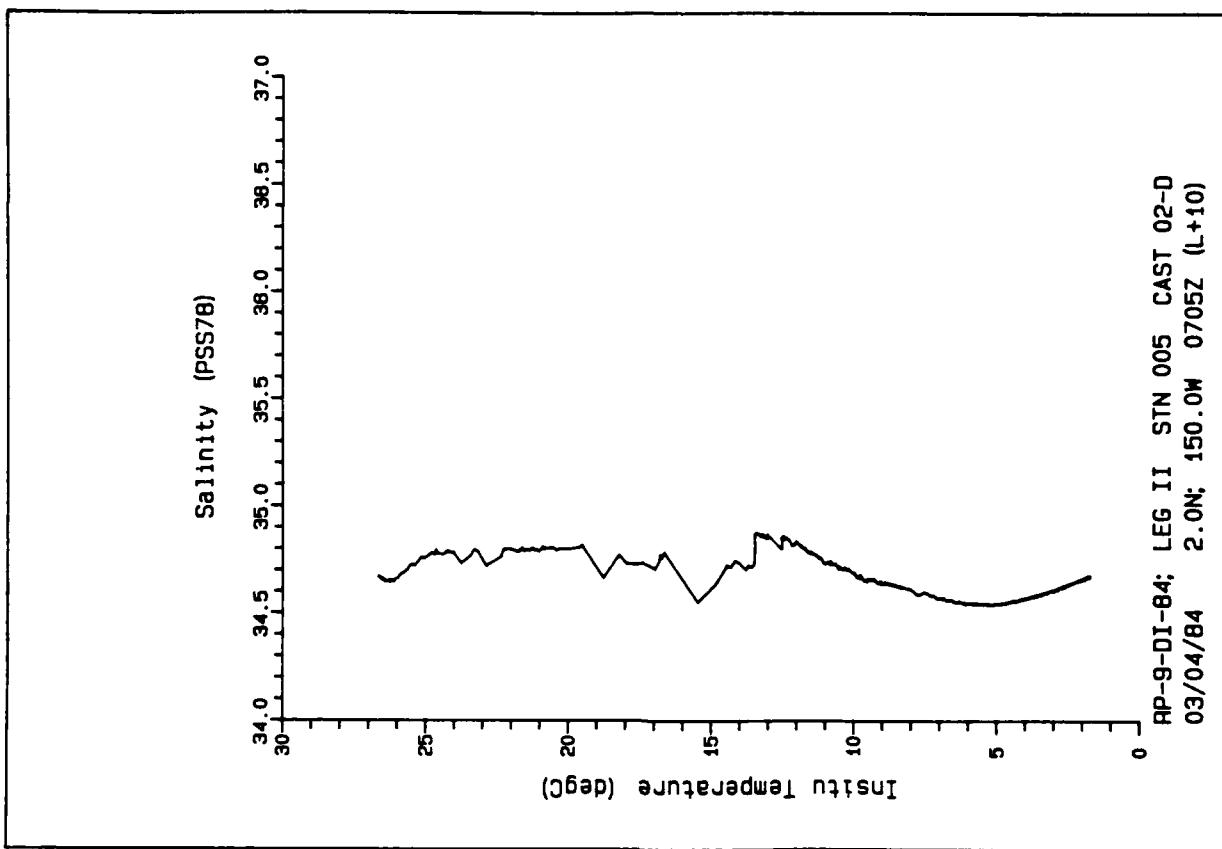


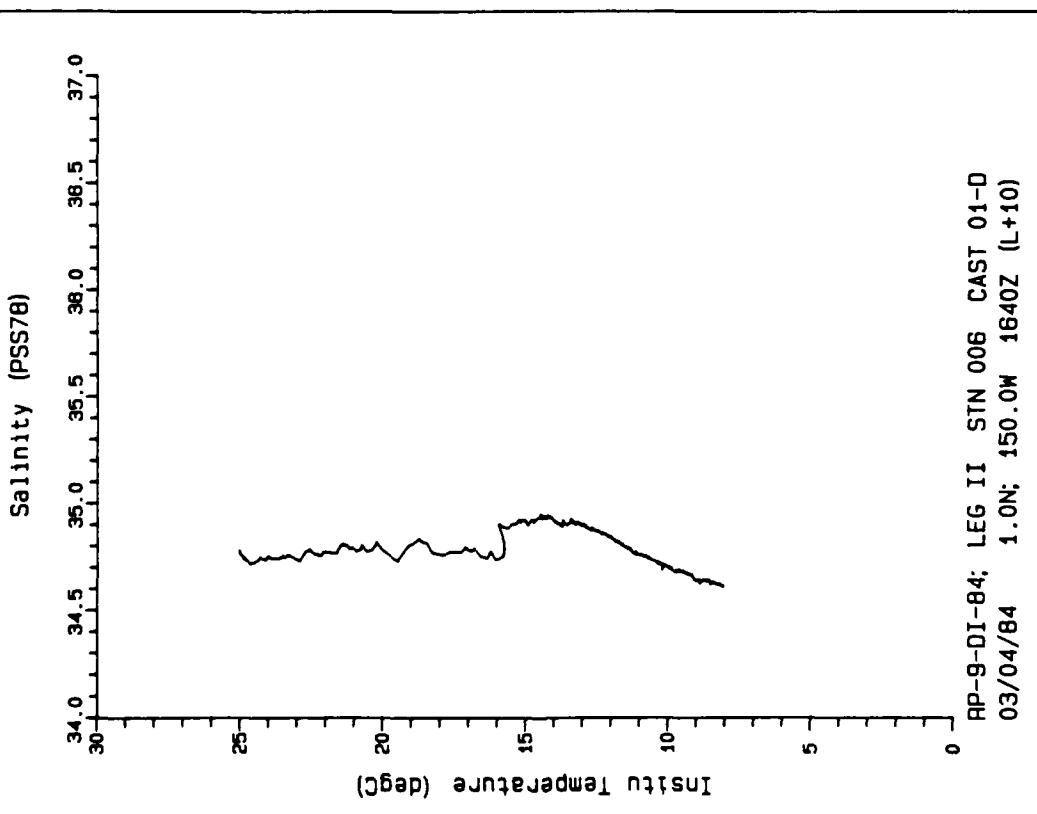
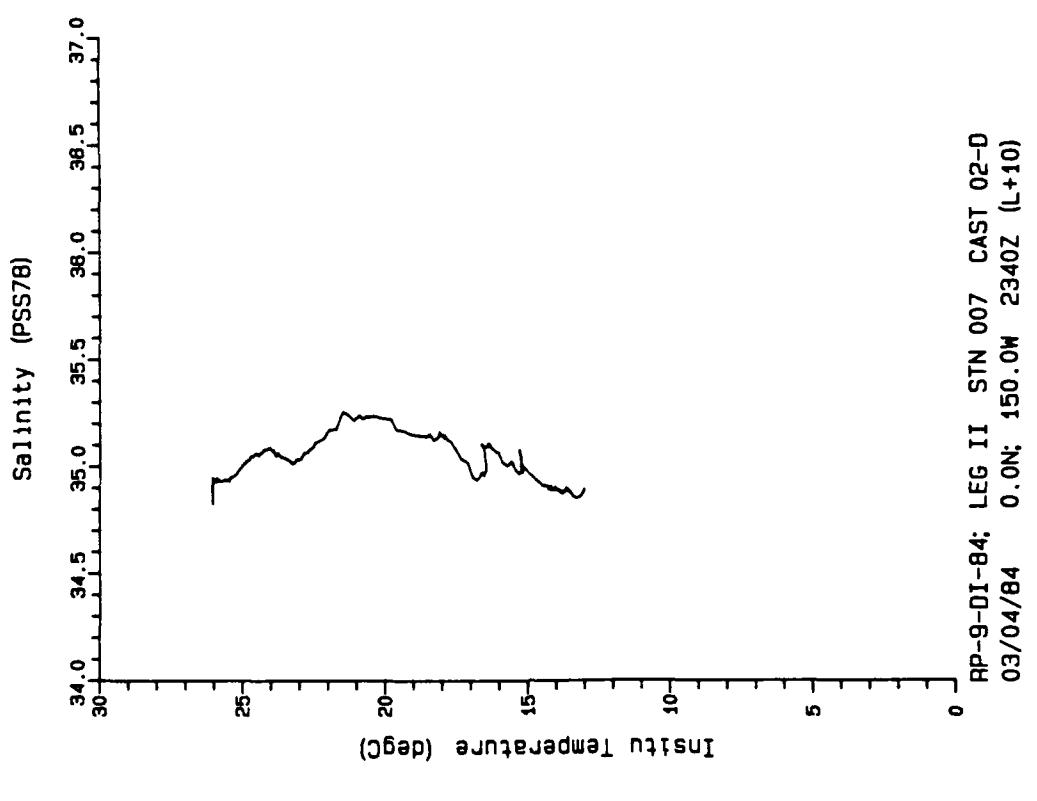


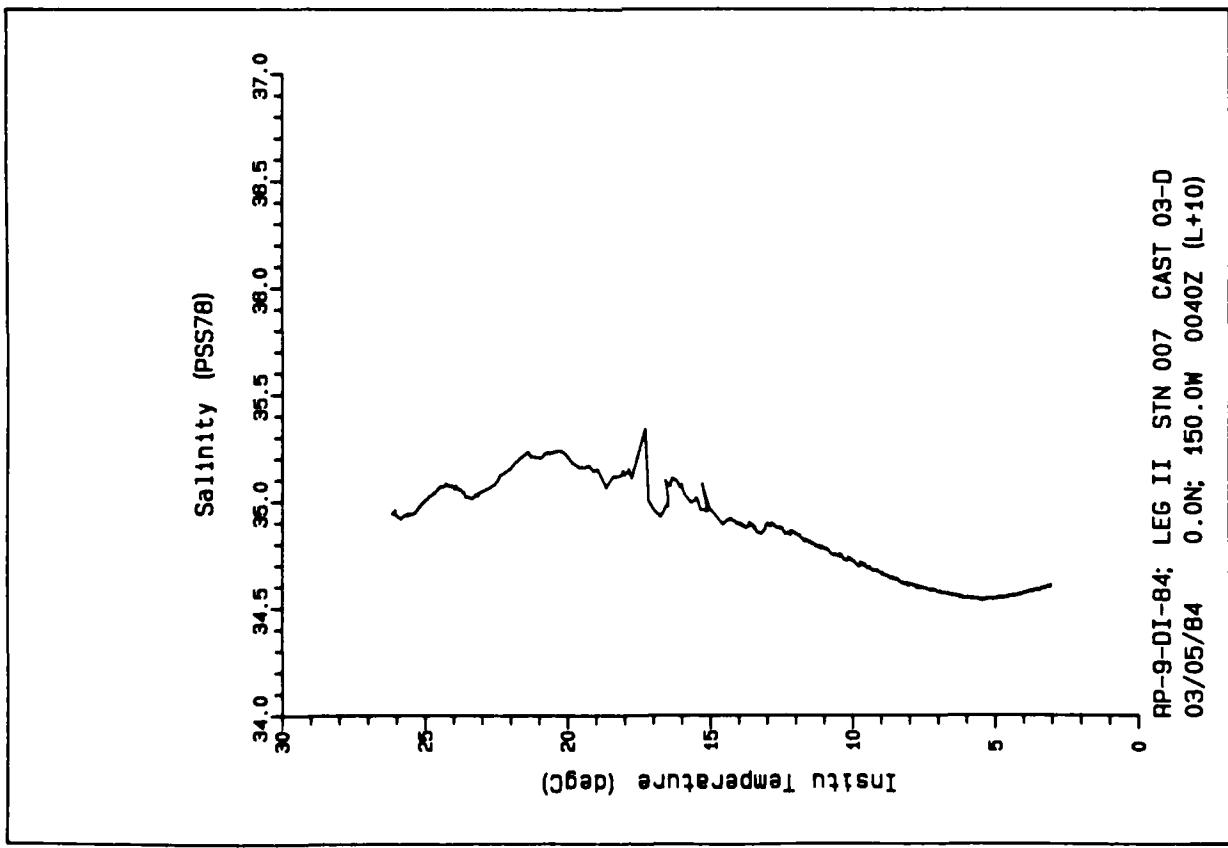
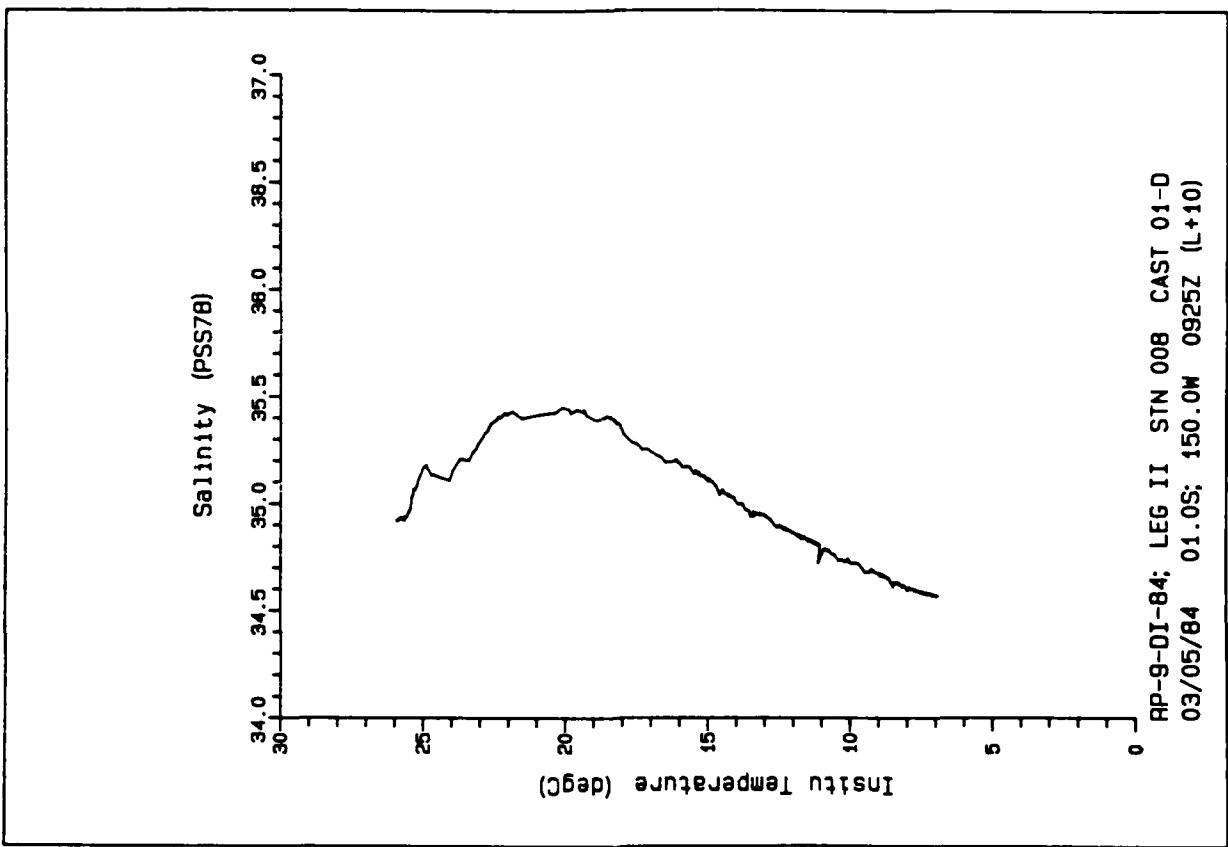


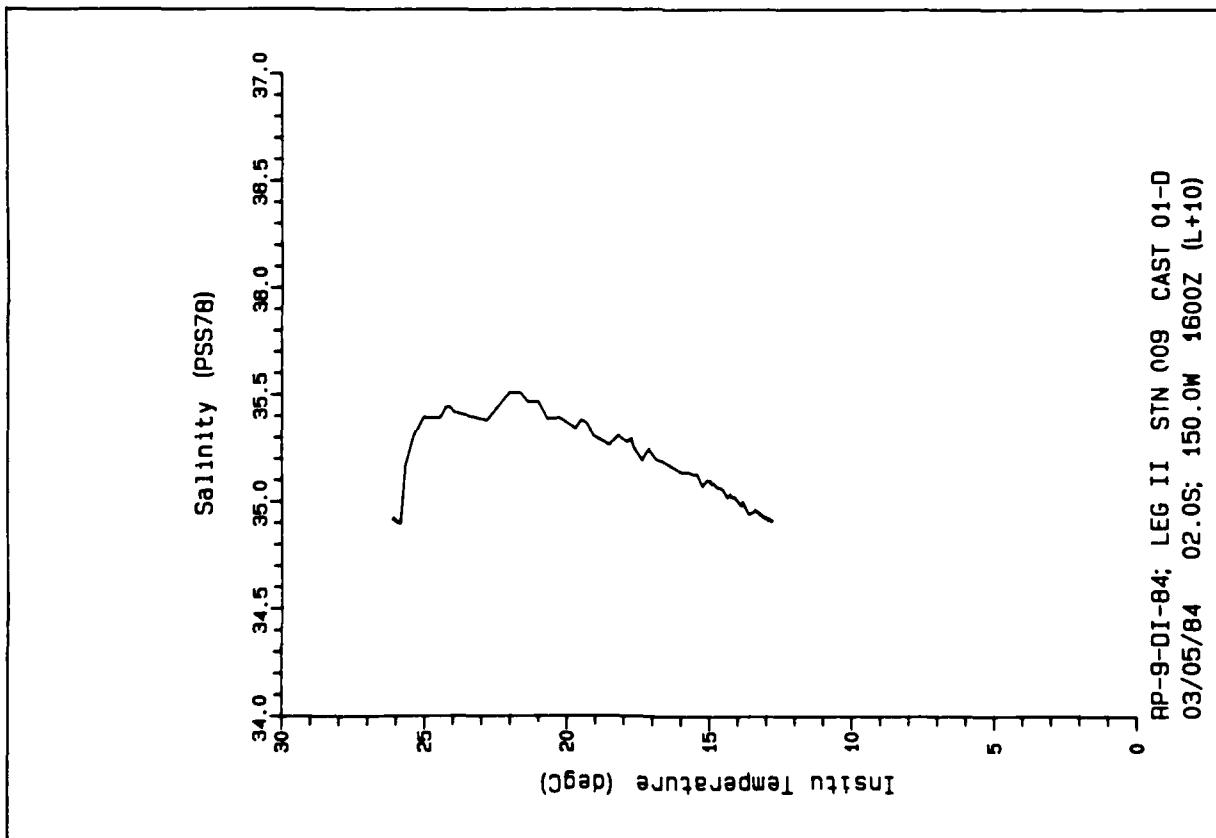
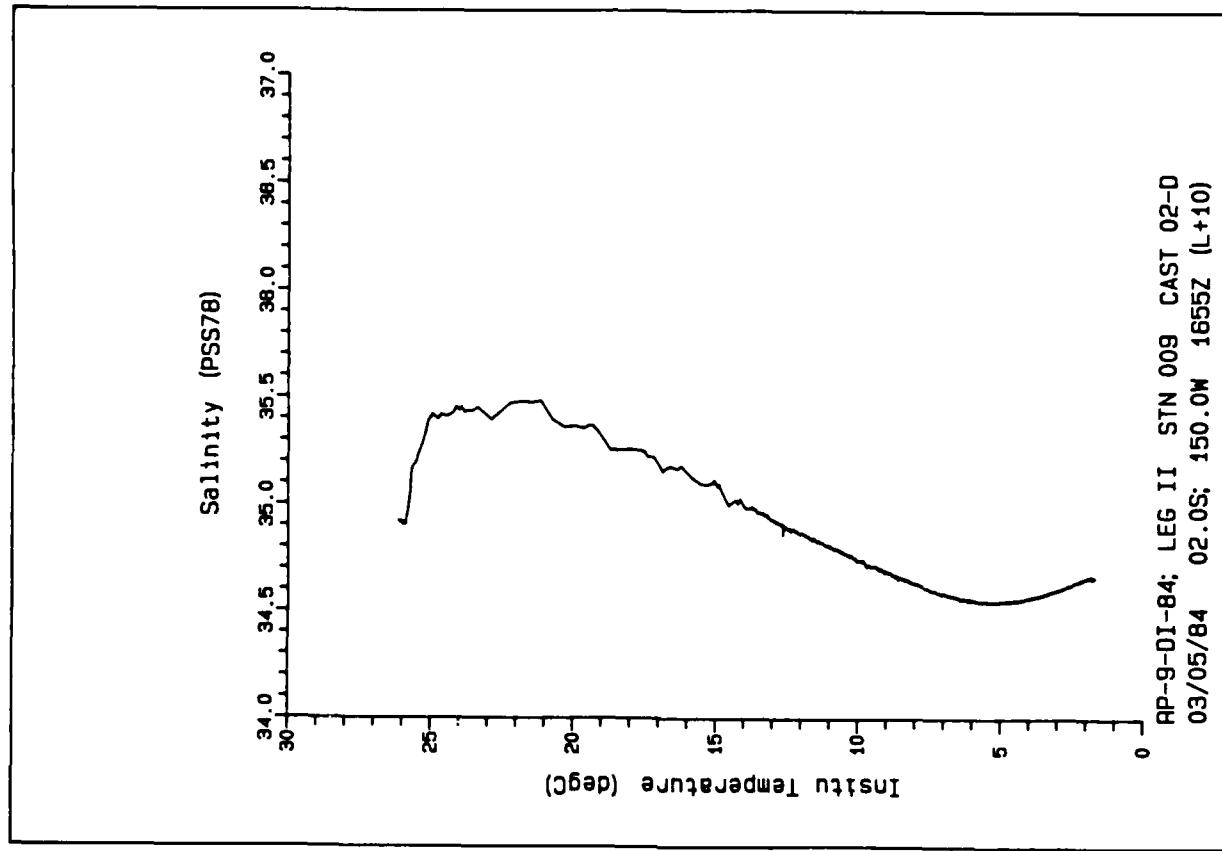


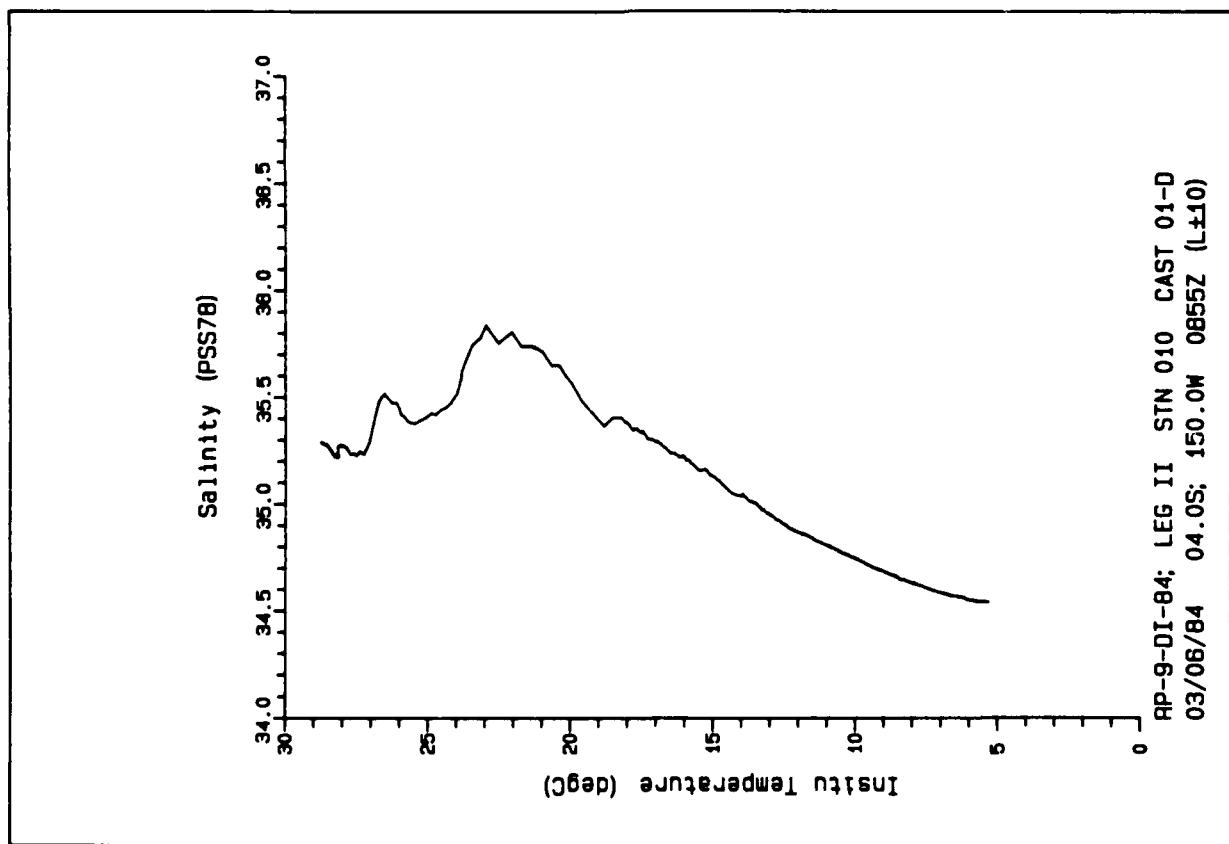
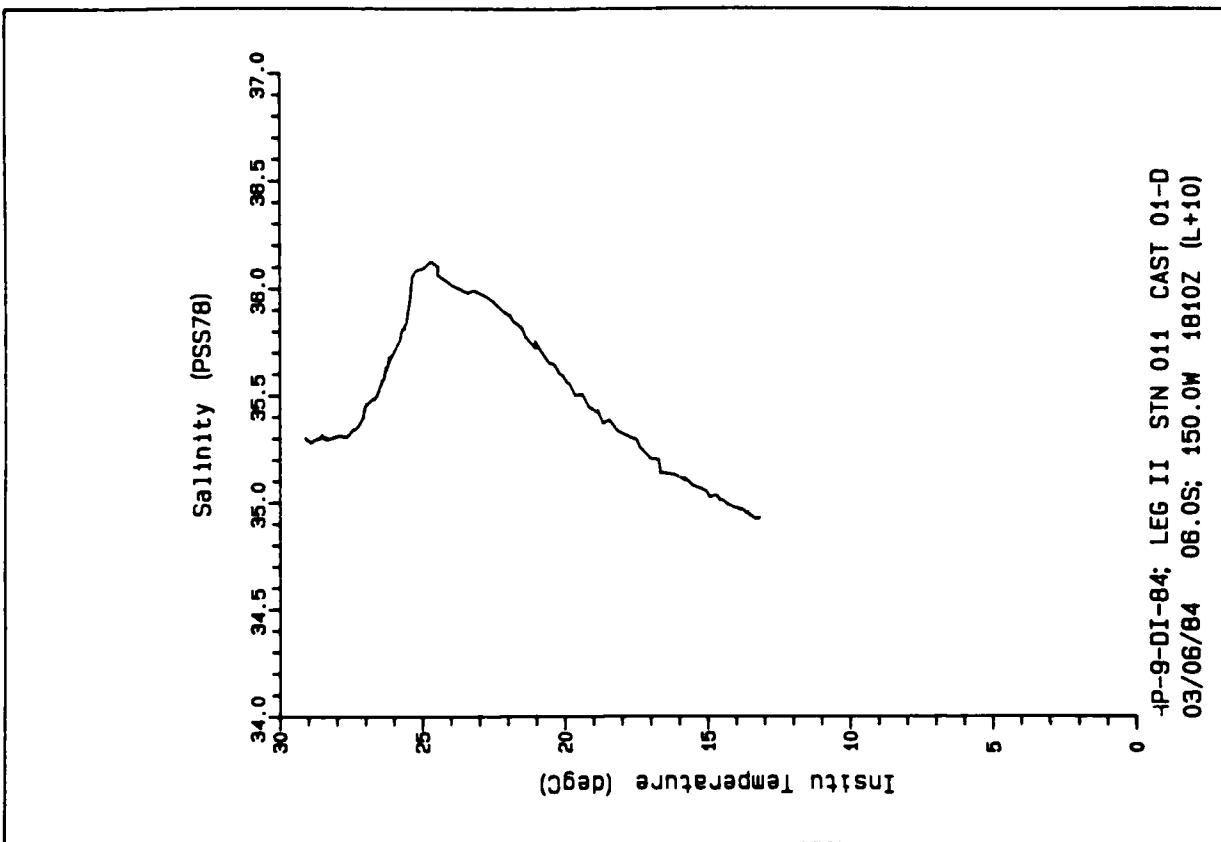


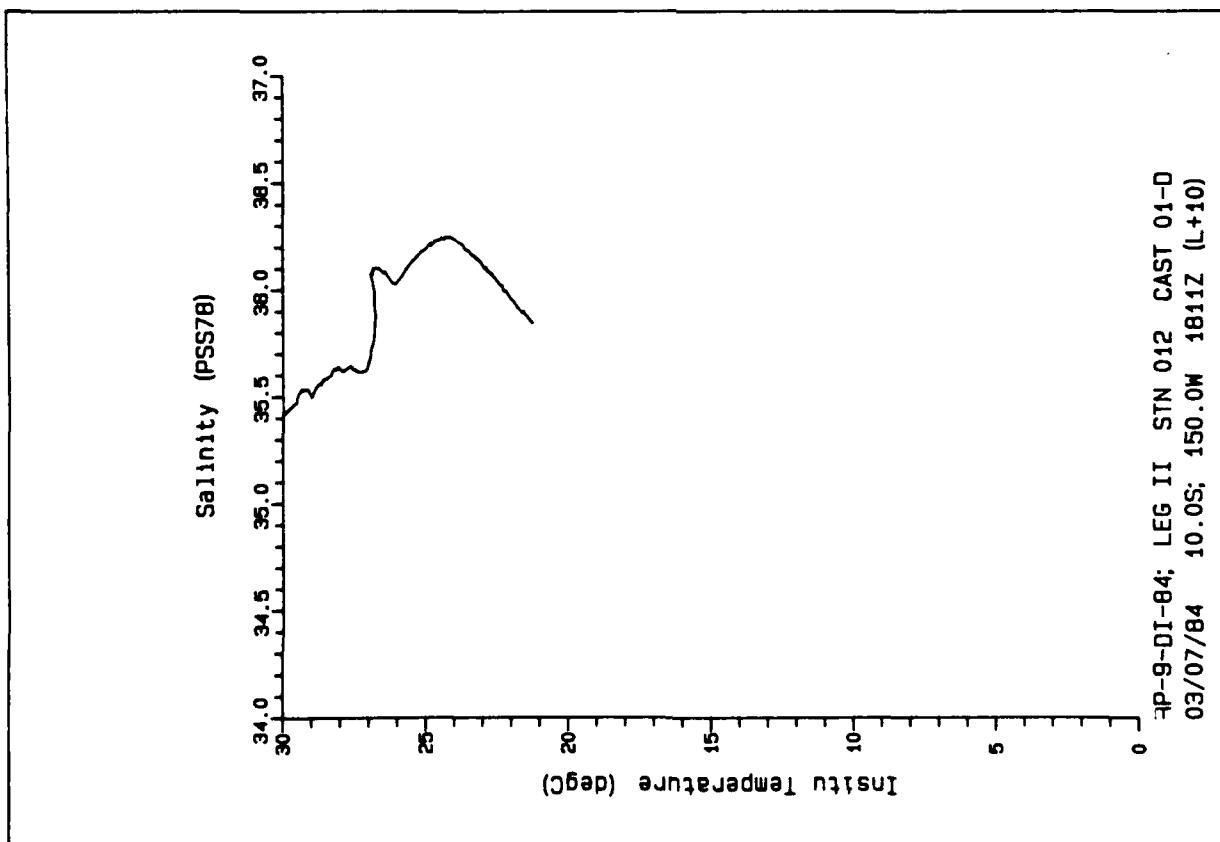
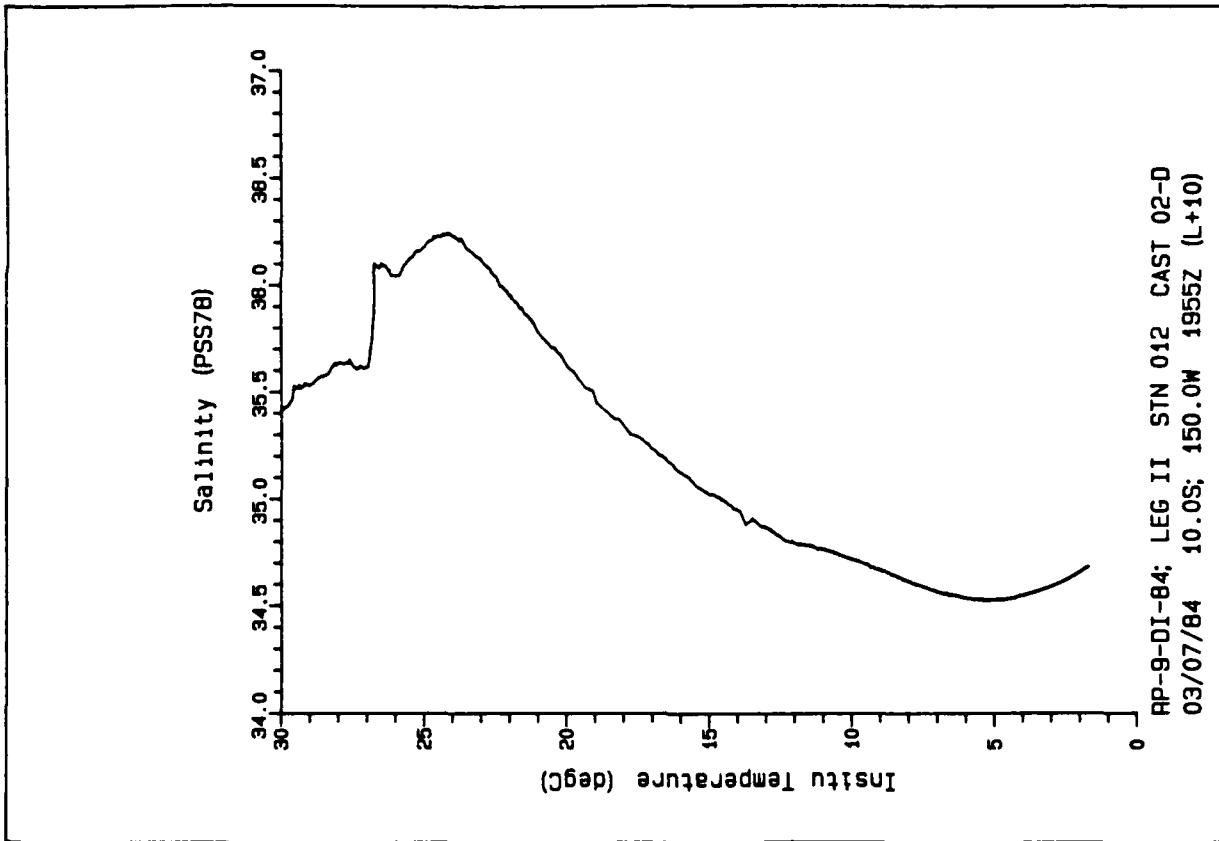


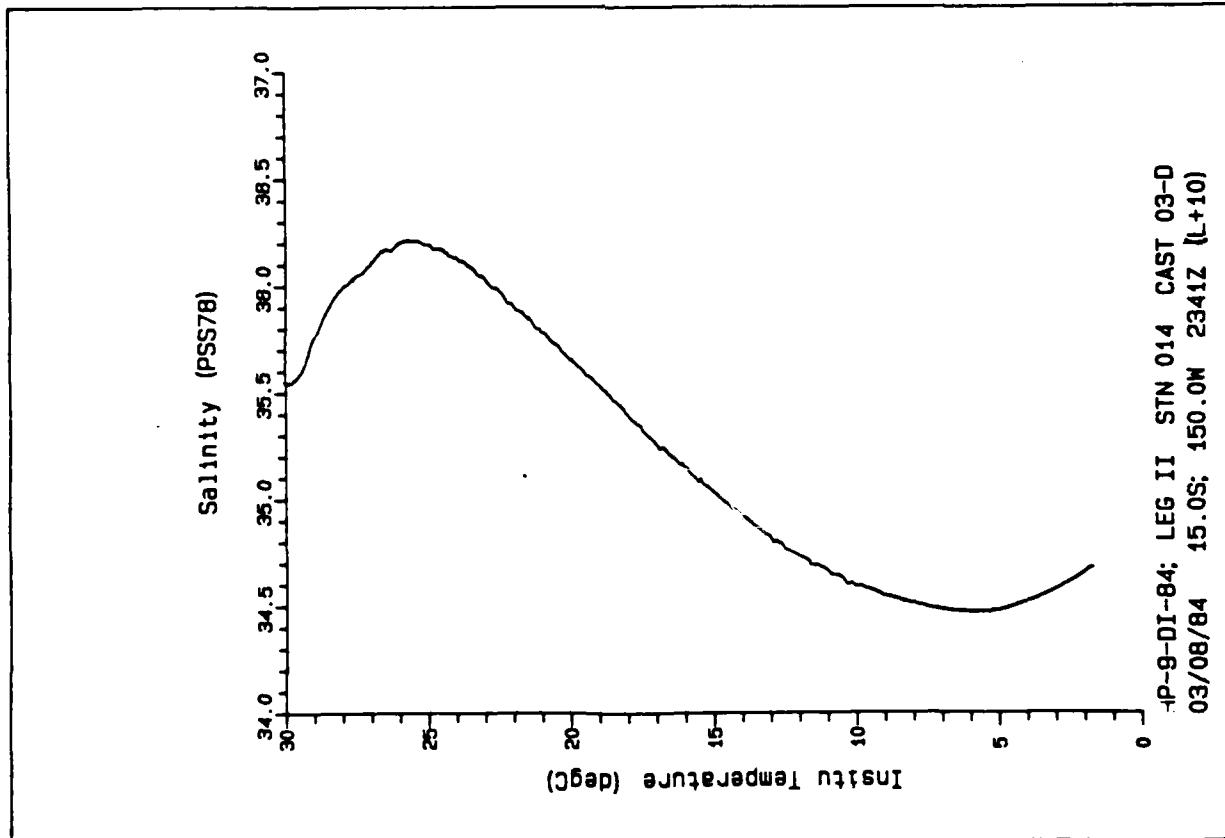
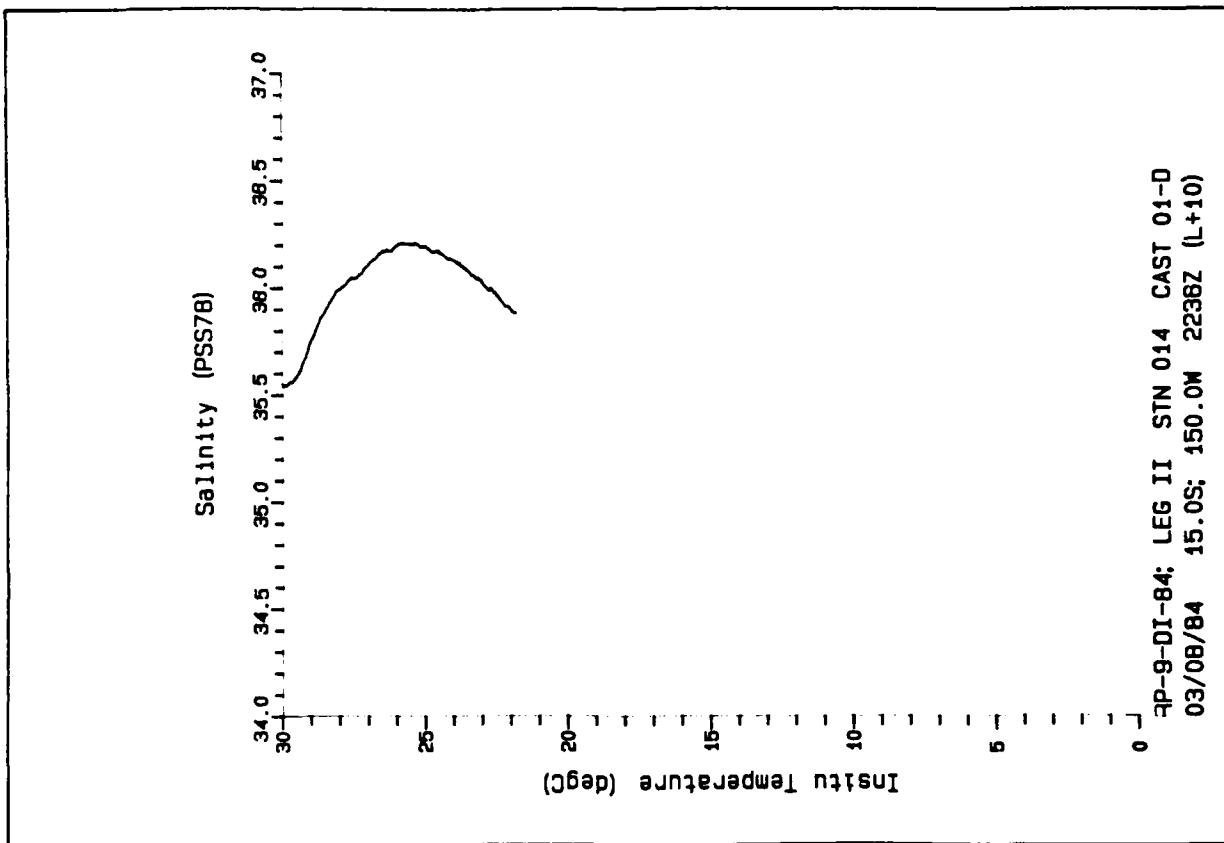












APPENDIX B: OSU DATA REPORT

NARRATIVE
PARTICLE COUNTER DATA
PROFILES
DATA TABLES

CRUISE DATA REPORT
OPTICAL OCEANOGRAPHY GROUP--OREGON STATE UNIVERSITY
NOAA SHIP DISCOVERER
Feb. 27, 1984 - Mar. 9, 1984
Honolulu, Hawaii to Papette, Tahiti, French Polynesia

DESCRIPTION OF THE INSTRUMENT PACKAGE

The Oregon State University K-Meter instrument package consists of a Biospherical Instruments, Inc. Spectroradiometer and the following additional sensors: Seabird Electronics, Inc. temperature and conductivity probes; a Q-Instruments in situ fluorometer; and a 25-cm beam transmissometer (built by the OSU Optical Oceanography group). The spectroradiometer has 11 narrowband filtered photodetectors spanning the visible light spectrum. A microprocessor in the instrument controls an A/D converter, which measures each parameter, averages scans if desired, subtracts background, formats the data string, and sends the results up the single-conductor electromechanical cable to the deck unit. A deck irradiance sensor, using a separate digitizer, adds a record of the surface light intensity to each data scan.

An opal glass spherical collector has been added to the spectroradiometer so that scalar irradiance is measured, rather than the vector irradiance obtained, with the cosine-collector supplied with the instrument. The instrument frame, which supports the components of the underwater package, is wrapped with a black plastic shroud to block light from below a horizontal plane from entering the spherical collector. Thus the collector is only exposed to light entering from the upper hemisphere of the total light field, but is equally sensitive to photons entering at any angle from vertical to horizontal.

The deck sensor used was a Biospherical Instruments, Inc., Solar Reference Hemispherical Irradiance Sensor which monitors the total photosynthetically active radiation (PAR) between 400 and 700 nm. The collector has a shroud to block light from below the horizontal plane and is gimbal mounted at the top of an A-frame away from shadows of nearby structures.

The transmissometer measures the attenuation of a collimated beam of monochromatic light at 665 nm. It is calibrated to give $c(665) = 0.364/m$ for laboratory-filtered reference water. It contains temperature compensation circuitry to correct for the range of temperatures encountered during this cruise. The downcasts at Stations 3 and 4 show the effect of improper temperature compensation below 125 m. The upcasts are slightly affected but are much closer to the correct value. A different transmissometer was used for the remainder of the cruise.

The Q-Instruments fluorometer is equipped with filters for detection of fluorescence in the wavelengths of the chlorophyll-a peak. Its three major components are a Xenon flash lamp that pulses at 10 Hz, Schott and Genossen BG 18 and RG 665 filters, and a synchronous photodiode detector. Because of the high power requirement of the fluorometer, a separate battery pack is required. Unfortunately, as the battery pack voltage drops, the fluorometer output signal decreases, and the flash rate becomes erratic. Both battery voltage and flash-lamp output are also affected by temperature; therefore, we list the output of the fluorometer only in the electrical unit, voltage.

Empirically, however, fluorometer output was found to have a high positive correlation with extracted chlorophyll pigments. There is a noise reduction filter circuit on the output of the fluorometer that has a 2-second time constant. At the normal lowering speed of 30 m per minute, this will result in a chlorophyll structure hysteresis of 2 or more meters between the down- and upcasts.

The Seabird temperature and conductivity probes have been frequently calibrated at OSU, and their values were compared to the primary CTD casts taken on the same stations. In addition, they were compared to reversing thermometers and bottle salinities obtained from the casts. Although the accuracy of the sensors is satisfactory, the computed salinity structure exhibits some severe spiking when strong temperature structures are encountered. Because of the secondary nature of the hydrographic data, it was decided not to invest the time and effort needed to despike the salinity and density data.

DATA ACQUISITION AND REDUCTION

An Apple II computer system interfaced to the deck unit runs a complex data acquisition program, sorts each scan into 0.5-m depth bins, displays the current conditions on the monitor, and produces a real-time plot of any three parameters versus depth. At the end of the cast, the contents of the depth bins are stored onto floppy disk. Additional programs allow listings and plots of the depth bin averaged data after the cast. Other programs are used in the laboratory to edit the data, correct underwater irradiance for changes in the surface irradiance, compute diffuse attenuations at each wavelength, and save this data for listing and plotting.

K REDUCTION PROCEDURE

We participated on cruise RP-9-DI-84 of the NOAA SHIP DISCOVERER on a ship of opportunity basis; accordingly, we had little control over the work schedule on board. Because of the tight ship schedule and necessity of assigning cast sequence, the irradiance casts were not always taken during optimal light conditions.

The observed underwater light profile will reflect changes in incident radiation, subsurface changes, and the water column attenuation. Our objective is to determine the latter. In order to separate these factors, the underwater measurements are normalized to reflect the synchronous incident radiation variations, as measured by the deck irradiance sensor. Normalizing in this manner, we still obtain erratic profiles due to subsurface effects such as ship shadow and reflections, sea surface wave focusing, and tipping of the underwater package. Therefore, an editing and smoothing program has been developed, and is applied to one spectral profile. We picked 488 nm, since it has the maximum penetration. The editing options of this program allow us to correct for ship shadow and reflections, and for mismatches in time and intensity of cloud effects as seen at the ship and at the depth of the underwater package by altering the deck irradiance values which are the denominators of each ratio. The surface normalized 488 nm profile is then smoothed to correct for any remaining effects by again modifying the deck irradiance. We consider this modified deck irradiance to reflect all the external variations. We obtain K profiles for all spectral bands by then normalizing each with the modified deck irradiance. In this way we can smooth all channels simultaneously.

In order to obtain accurate estimates of diffuse attenuation at low light levels, it is necessary to correct for the sensor voltage of each spectral sensor at total darkness. Otherwise the logarithmic reduction in light with depth will appear curvilinear, as we would be determining the log of the light signal plus a constant offset. The dark current output of the photodiodes used in the irradiance meter changes with temperature and aging. Fortunately, the photodiode array is sufficiently isolated from the water column so that significant changes do not occur during the half-hour period required to take a cast. On the other hand, the conditions on the deck between the casts can significantly alter the array temperature and resultant dark current. If the light level falls below the level of detection in a given spectral channel, it is possible to correct the lighted portion of the cast by a linear offset equal to the average dark potential. If, however, there is still significant signal at the deepest point of the cast, then that wavelength must be corrected more arbitrarily using the shape of the $\log E(\lambda)$ curve or other casts which reached darkness at that wavelength. This step of zero adjustment is the most critical step in obtaining good estimates of diffuse attenuation to the limit of detectability in each spectral channel.

DATA

K-Meter casts were taken at 9 stations and were analyzed for diffuse attenuation at all stations except Station 3 at 6.0°N. Data are presented in two formats: plots and listings. Plots and listing of hydrographic parameters, beam attenuation coefficient [$c(665)$], and fluorescence for the casts which were not used for spectral attenuation analysis are included for completeness.

EDITOR'S NOTE: OSU stations were numbered sequentially 1-9. After station 4, K-Meter system casts were not done on every NOAA/NORDA station. Therefore the following corrections should be applied:

OSU STATION	CORRESPONDING NOAA/NORDA STATION
5	7
6	9
7	11
8	12
9	14

PARTICLE SIZE DISTRIBUTIONS

NOAA SHIP DISCOVERER
FEBRUARY 27 - MARCH 9, 1984
HAWAII TO TAHITI

Particle size distributions were measured with a resistive-pulse particle counter using 50 μm and 100 μm apertures. The small aperture measured particles with spherical equivalent diameters between 1.75 and 11.1 μm . The large aperture covers the range from 3.1 to 25 μm . Each data window includes particles with volumes between half powers of $2 \mu\text{m}^3$. For example, the first window of the small aperture covers particles with volumes between 2 and $4 \mu\text{m}^3$. There are 8 windows of overlap between the two apertures. Discrepancies between the two were resolved for each of the overlapping windows in one of the following ways in order of preference: (1) averaging the two values or (2) choosing the value of one or the other aperture. The data for the sample was discarded, as none of the overlapping windows agreed well enough to form a smooth number distribution. Disagreements could be caused by electronic noise, partial cloogging, or a statistically insufficient number of counts in a given window.

Volume concentrations (ppm) were computed by multiplying the particle concentration in each window by the average of the delimiting volumes for that window. Assuming a power distribution, this method of computing volume concentrations gives a value 0.5 to 2% high for a reasonable range of exponents (slopes).

HSLP is the slope of the regression equation determined for the logarithm of the differential particle concentration (N/D) vs. the logarithms of the particle diameter (D). Assuming that the particle size distribution is fit by a power function, $dN = N D^{-S} dD$, HSLP is equal to the exponent, s . By definition, these differential slopes are 1.0 larger than the cumulative slopes which are often reported. A large slope indicates that a larger percentage of the particles are small. The % VAR is the percent of the variance of logarithms of particle concentration densities removed by the regression.

PARTICLE COUNTER DATA

PARTICLE COUNTER DATA

R/V DISCOVERER

Feb. 27, 1984 - Mar. 9, 1984

2-MAR-84 0011Z
10 N 150 W3-MAR-84 0247Z
6 N 150 W

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.024	4.45	98.5
25	.026	4.53	98.4
35	.022	4.68	98.6
50	.024	4.45	99.2
75	.068	4.72	98.7
100	.017	4.48	99.1
125	.011	4.20	99.0
140	.010	4.25	98.9

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.048	4.31	99.2
20	.050	4.51	98.4
25	.053	4.52	99.2
35	.053	4.57	99.0
50	.051	4.52	99.2
60	.067	4.45	98.8

3-MAR-84 0624Z
6 N 150 W4-MAR-84 0908Z
2 N 150 W

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.048	4.56	99.4
50	.045	4.71	99.2
100	.037	4.37	98.6
500	.011	4.15	97.9
700	.007	4.16	98.1

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.069	4.43	98.8
50	.056	4.52	98.9
100	.027	4.48	99.4
200	.011	4.22	99.0
300	.013	4.01	99.1
500	.007	4.35	98.8

5-MAR-84 0300Z
0 150 W5-MAR-84 1613Z
2 S 150 W

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.051	4.43	98.8
50	.067	4.58	99.1
100	.021	4.31	98.6
200	.016	4.53	98.4
300	.013	4.11	99.3
500	.012	4.06	99.1

DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.037	4.67	98.9
20	.037	4.83	98.7
25	.035	4.92	99.4
35	.039	4.27	99.3
50	.044	4.61	98.7
60	.045	4.33	99.3
75	.043	4.67	99.5
90	.037	4.35	99.4
100	.028	4.56	98.6
125	.021	4.09	98.7

PARTICLE COUNTER DATA
 R/V DISCOVERER
 Feb. 27, 1984 - Mar. 9, 1984

5-MAR-84 1900Z
 2 S 150 W

6-MAR-84 2130Z
 6 S 150 W

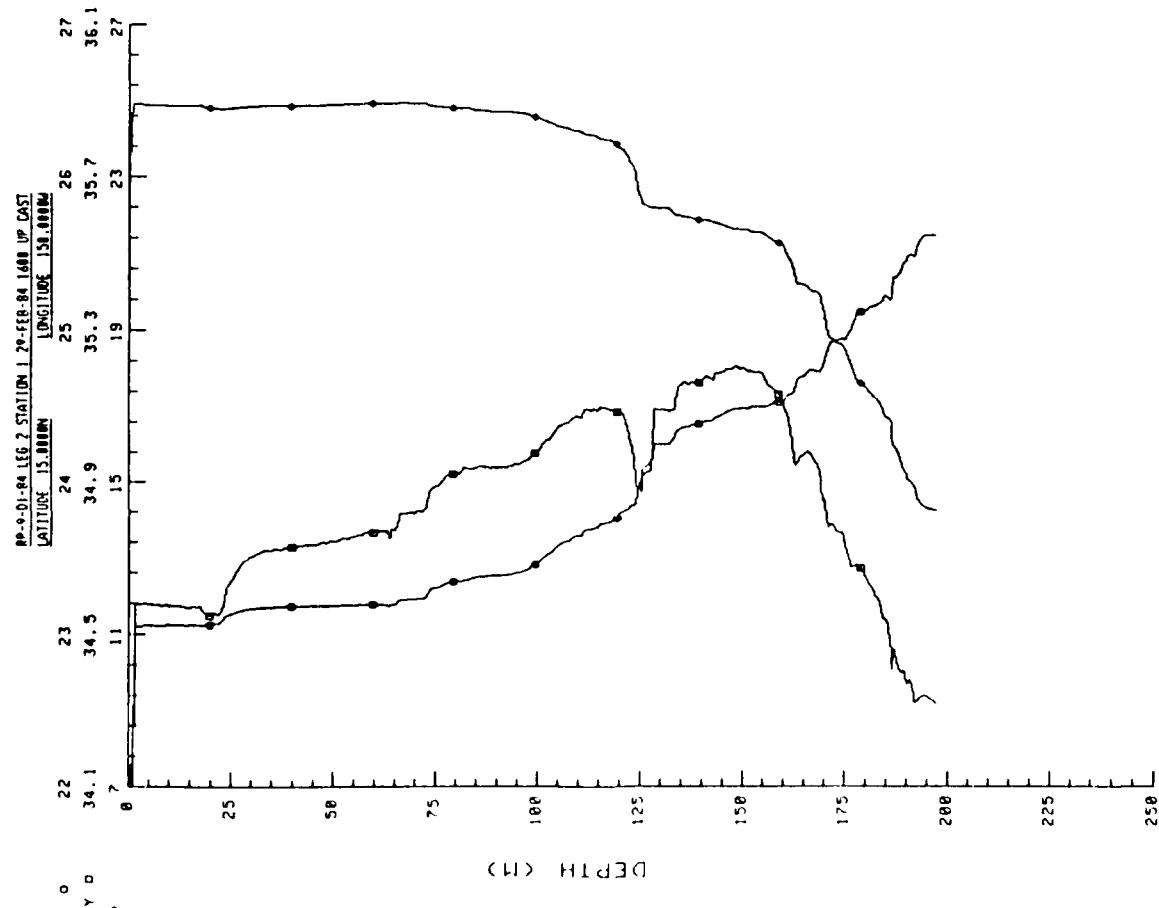
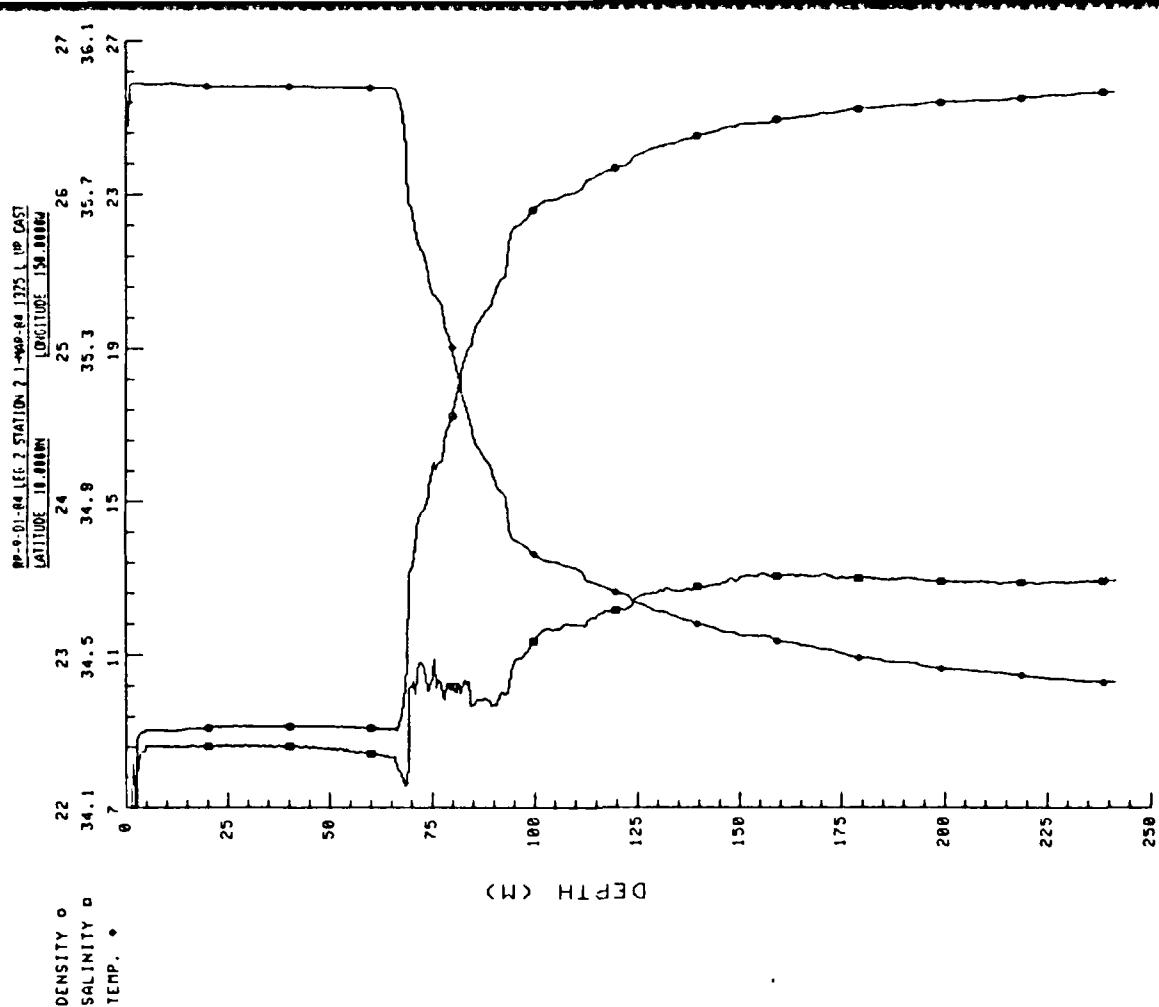
DEPTH (m)	VOLUME (ppm)	HSLP	%VAR	DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
400	.007	4.10	98.0	10	.018	4.83	99.4
600	.005	4.22	99.3	50	.023	4.47	99.2
1000	.006	4.02	98.5	100	.021	5.06	99.7
1500	.007	4.30	99.2	200	.008	3.99	98.8
2500	.005	3.90	97.2	300	.006	4.22	99.0
	.			500	.005	4.13	97.7

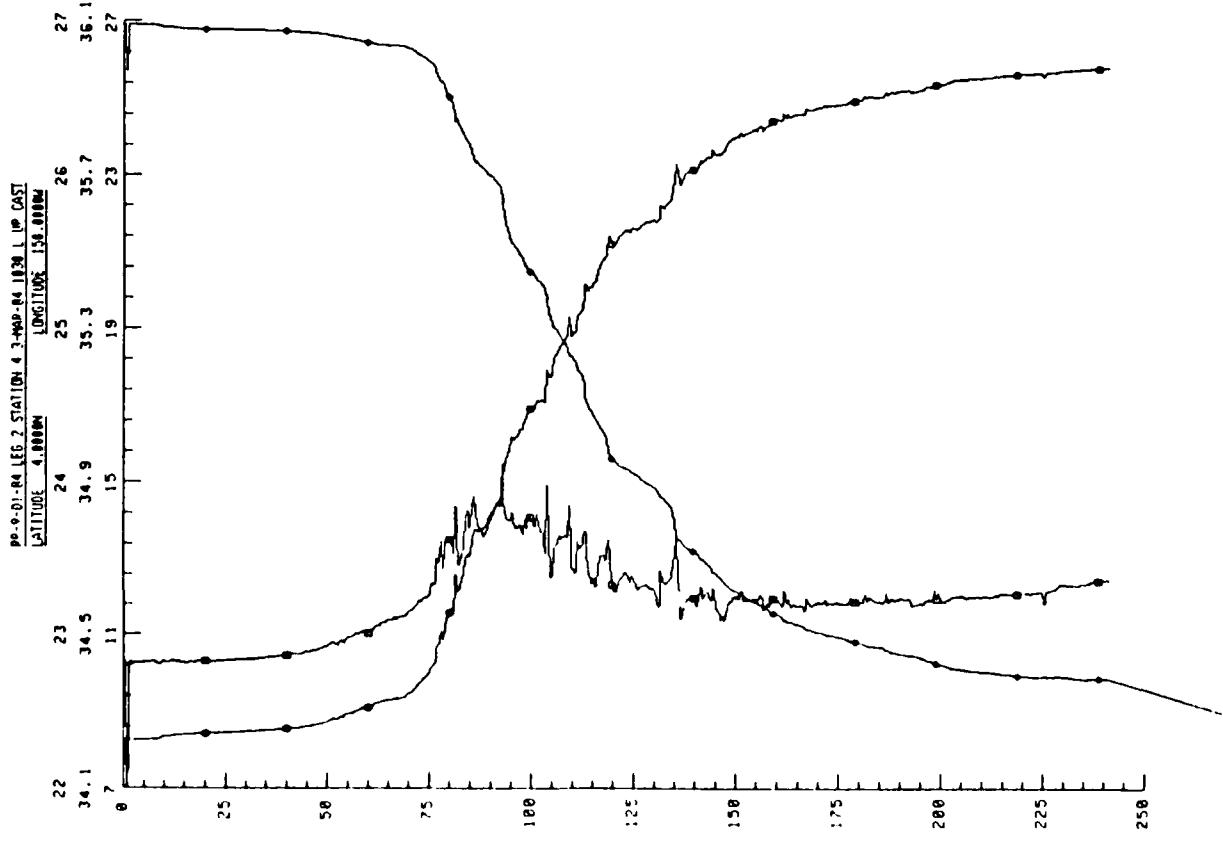
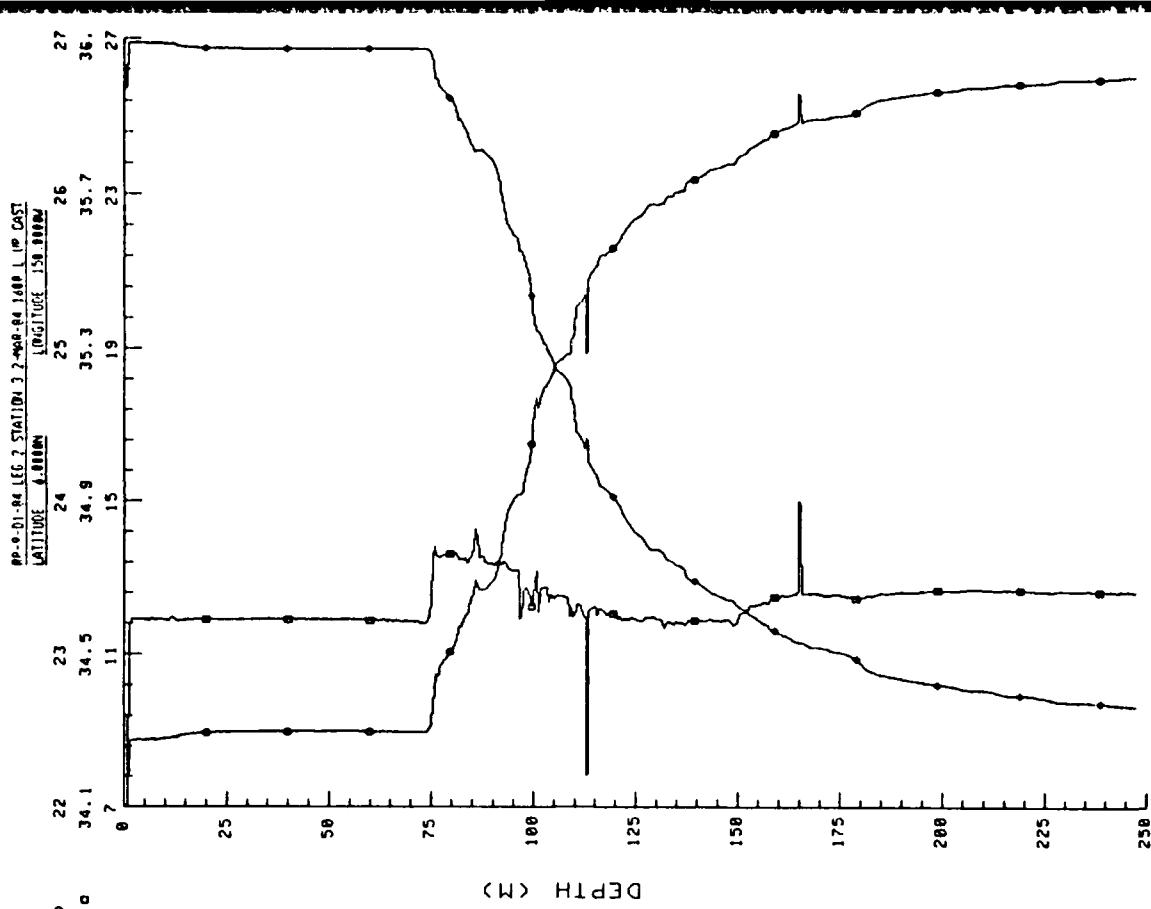
7-MAR-84 1828Z
 10 S 150 W

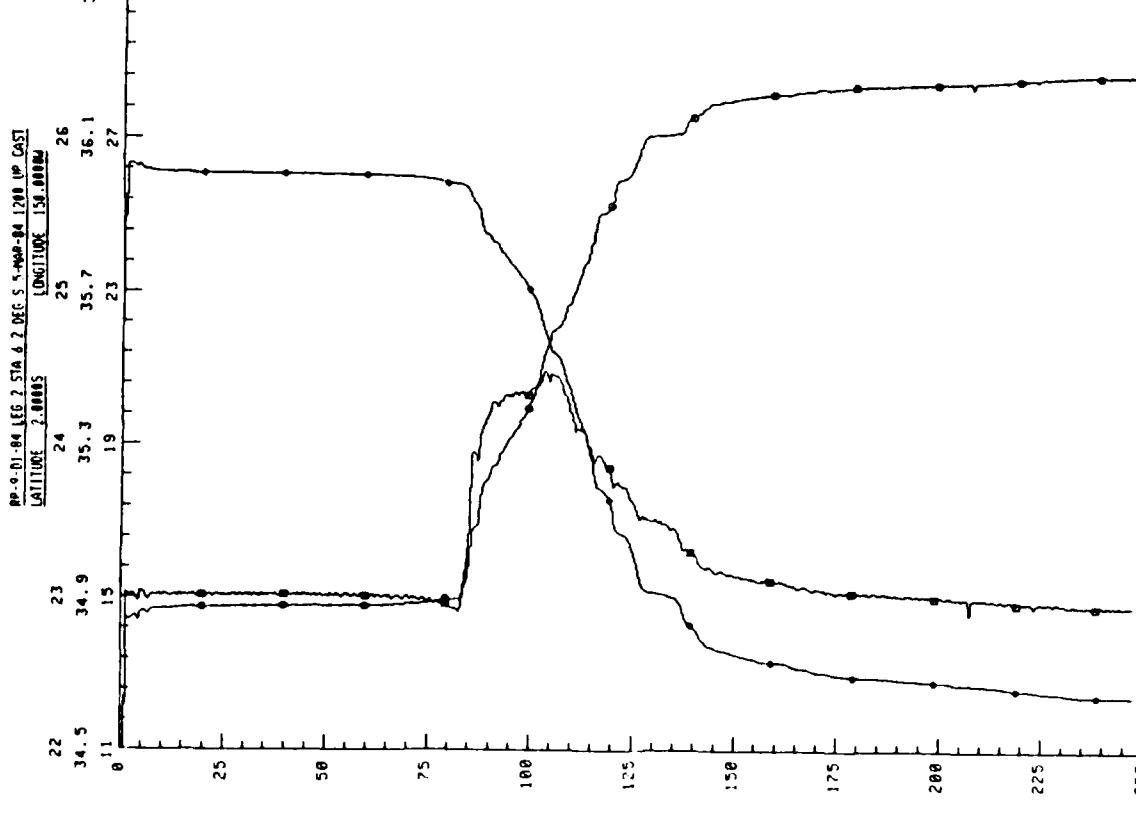
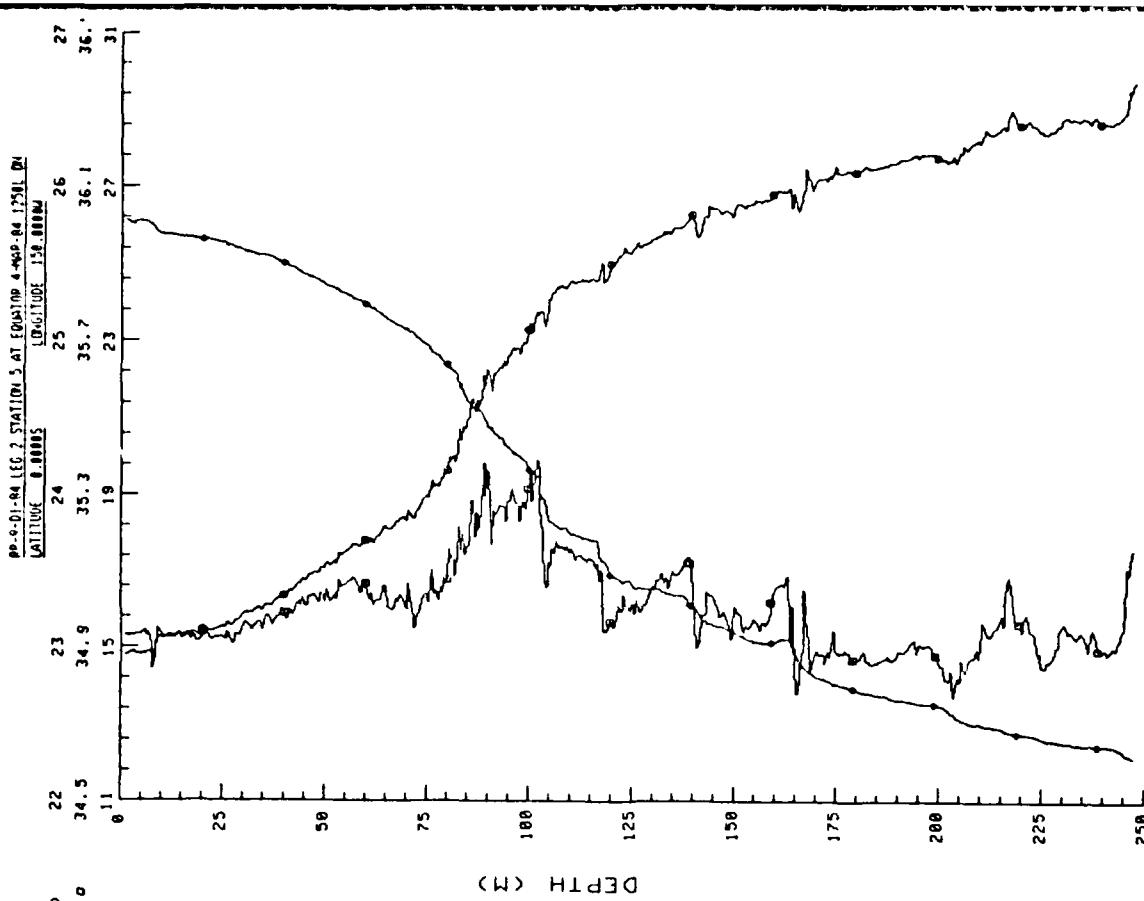
8-MAR-84 2245Z
 15 S 150 W

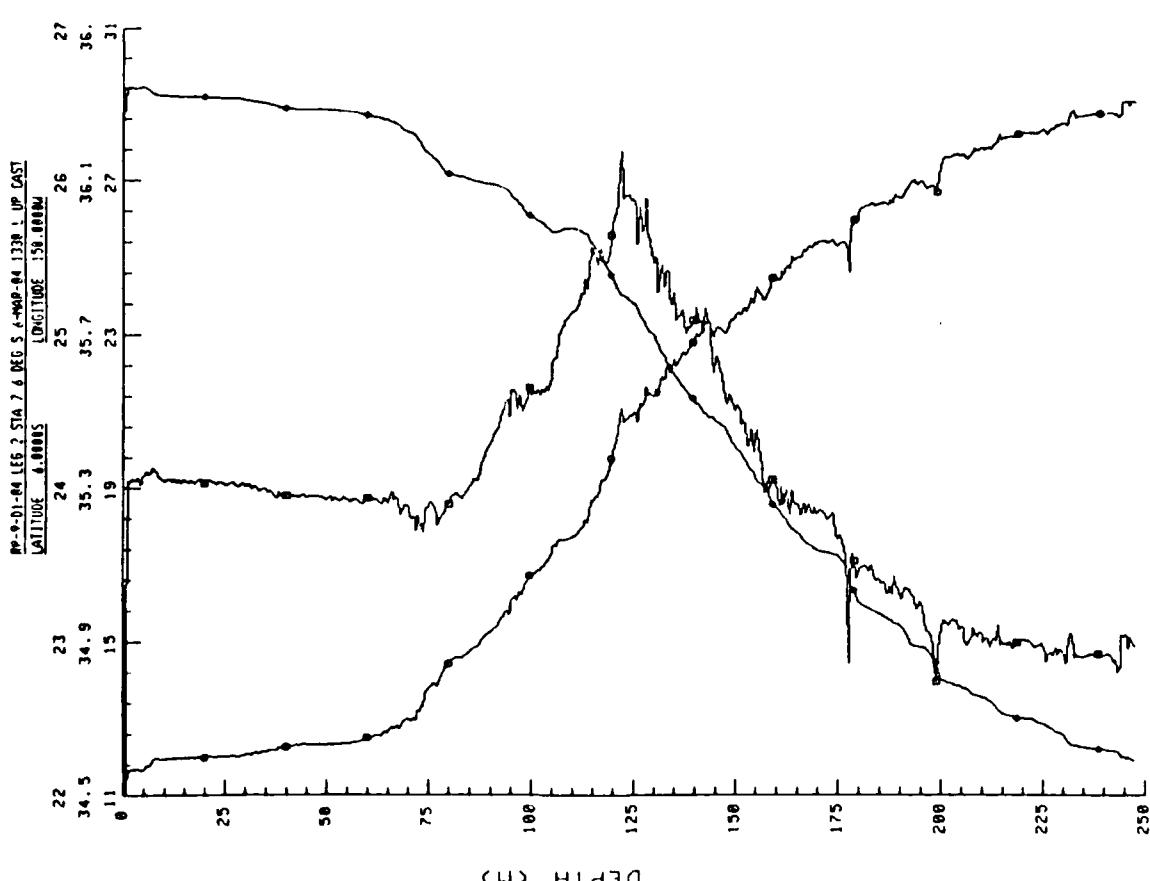
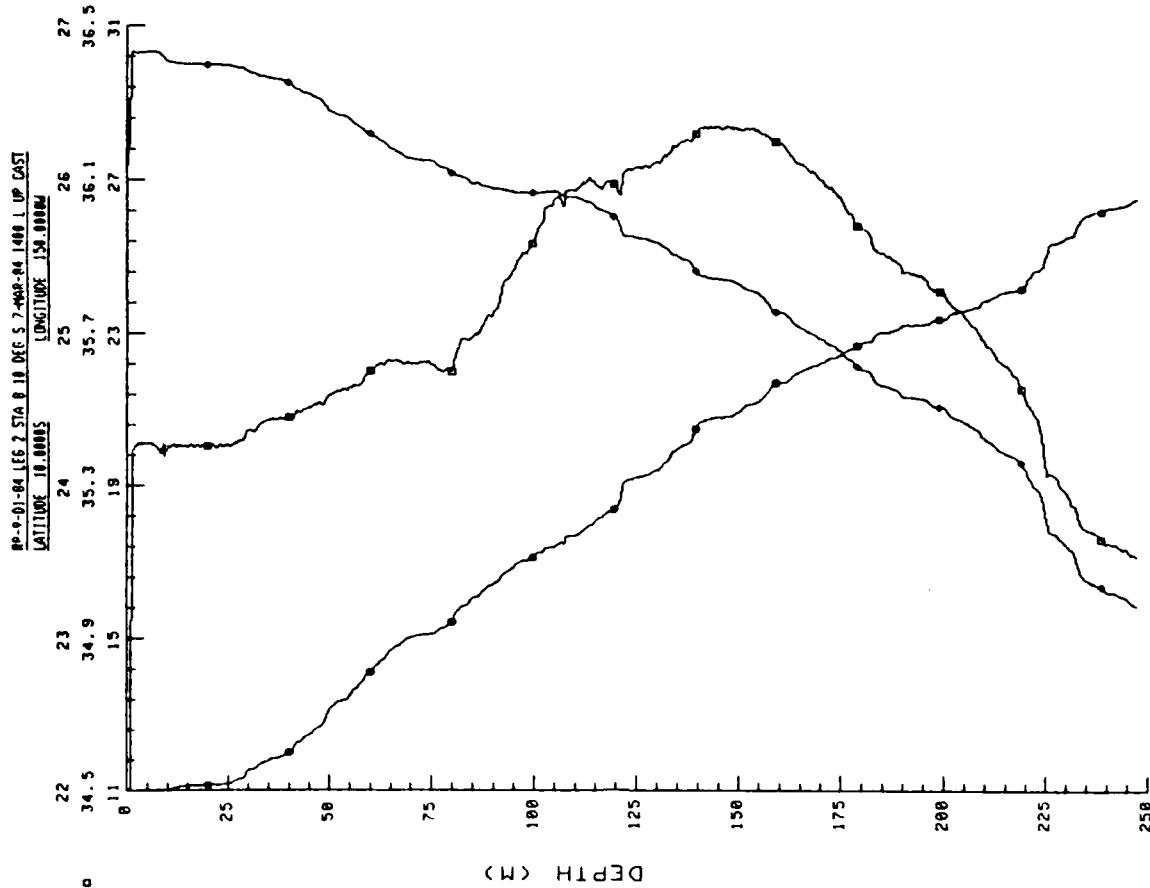
DEPTH (m)	VOLUME (ppm)	HSLP	%VAR	DEPTH (m)	VOLUME (ppm)	HSLP	%VAR
10	.016	4.41	98.9	10	.021	4.48	99.2
20	.019	4.23	98.6	20	.020	4.39	98.9
25	.015	4.29	99.1	25	.025	4.31	98.3
35	.021	4.32	99.2	35	.045	4.83	98.3
50	.019	4.01	99.0	50	.024	4.65	98.6
60	.020	4.40	99.4	60	.023	4.31	98.4
75	.026	4.10	99.1	80	.031	4.46	99.6
90	.028	4.43	98.7	100	.029	4.27	99.6
100	.020	4.51	98.2	130	.019	4.37	99.0
125	.024	4.40	98.7	160	.014	4.17	99.4

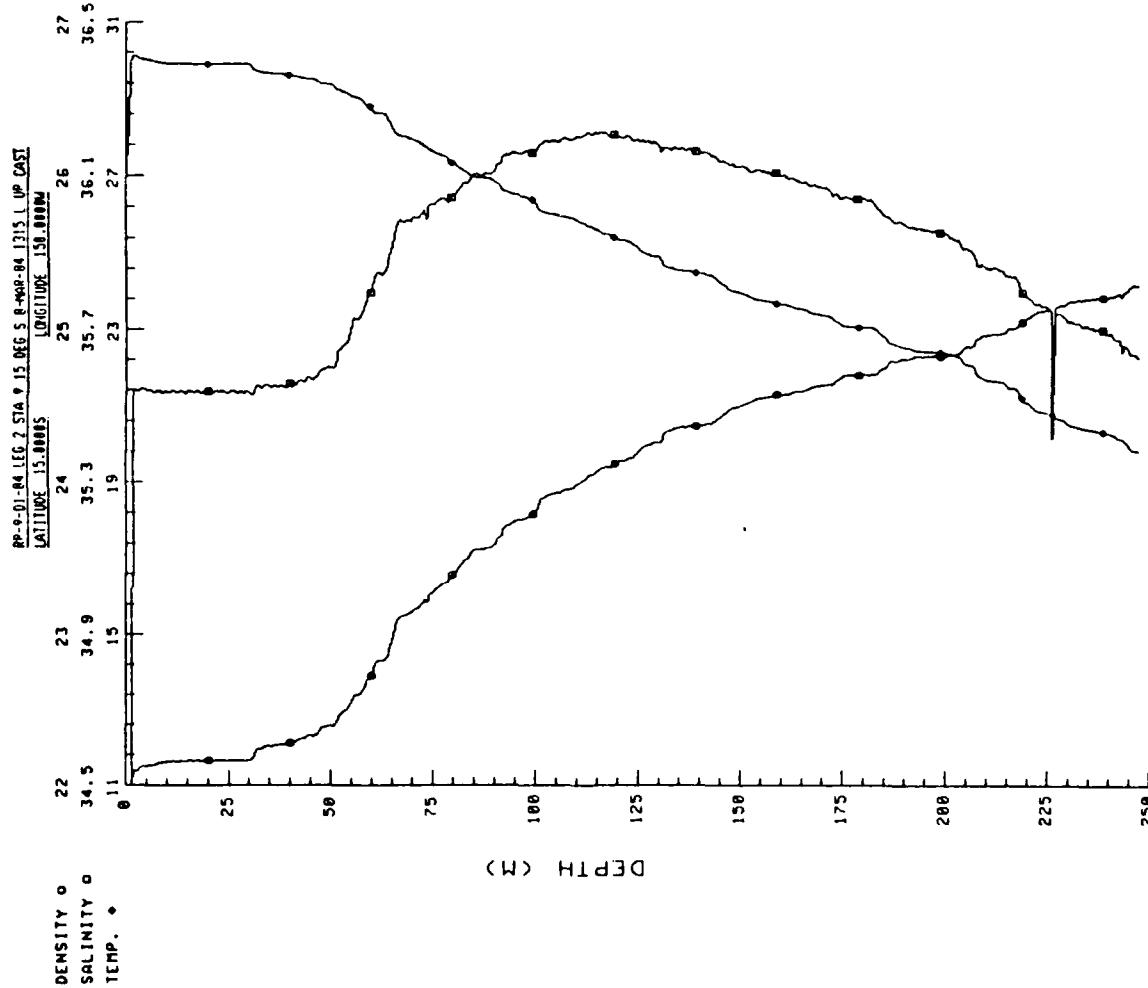
HYDROGRAPHIC PROFILES



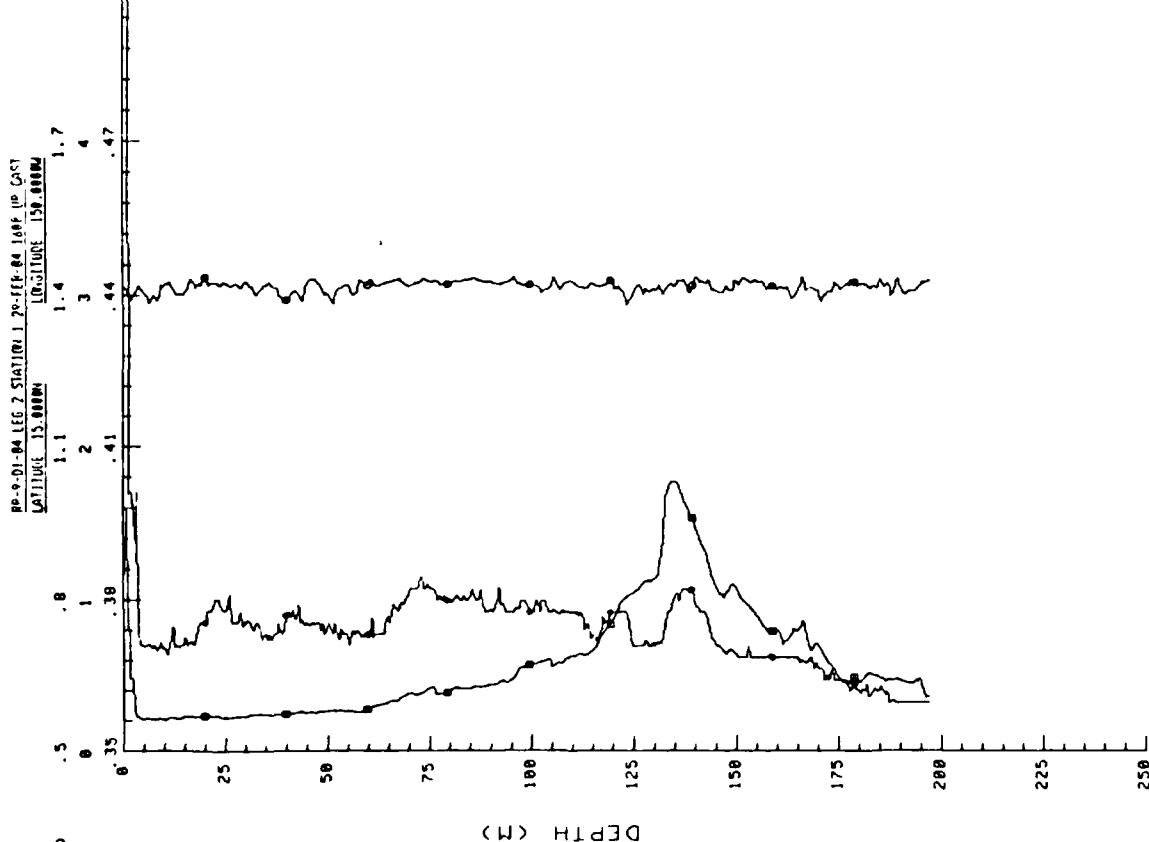
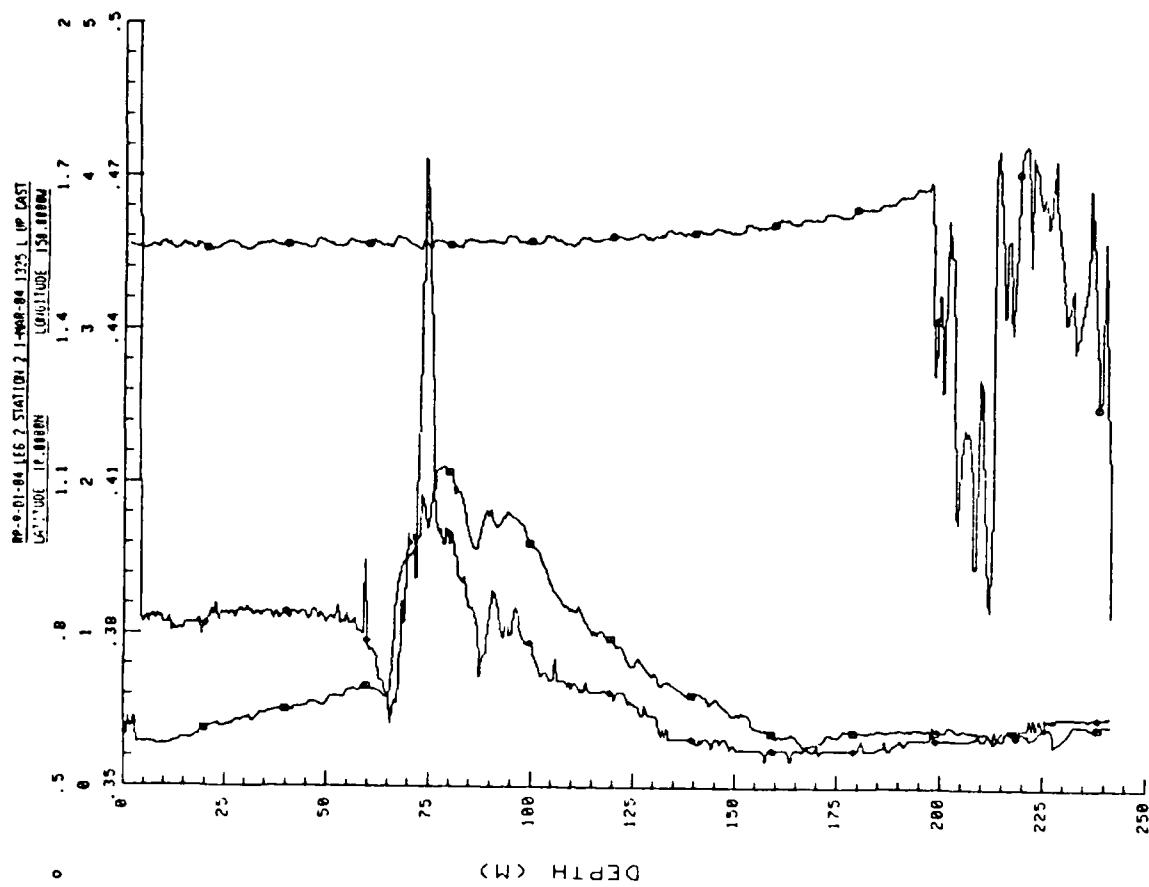




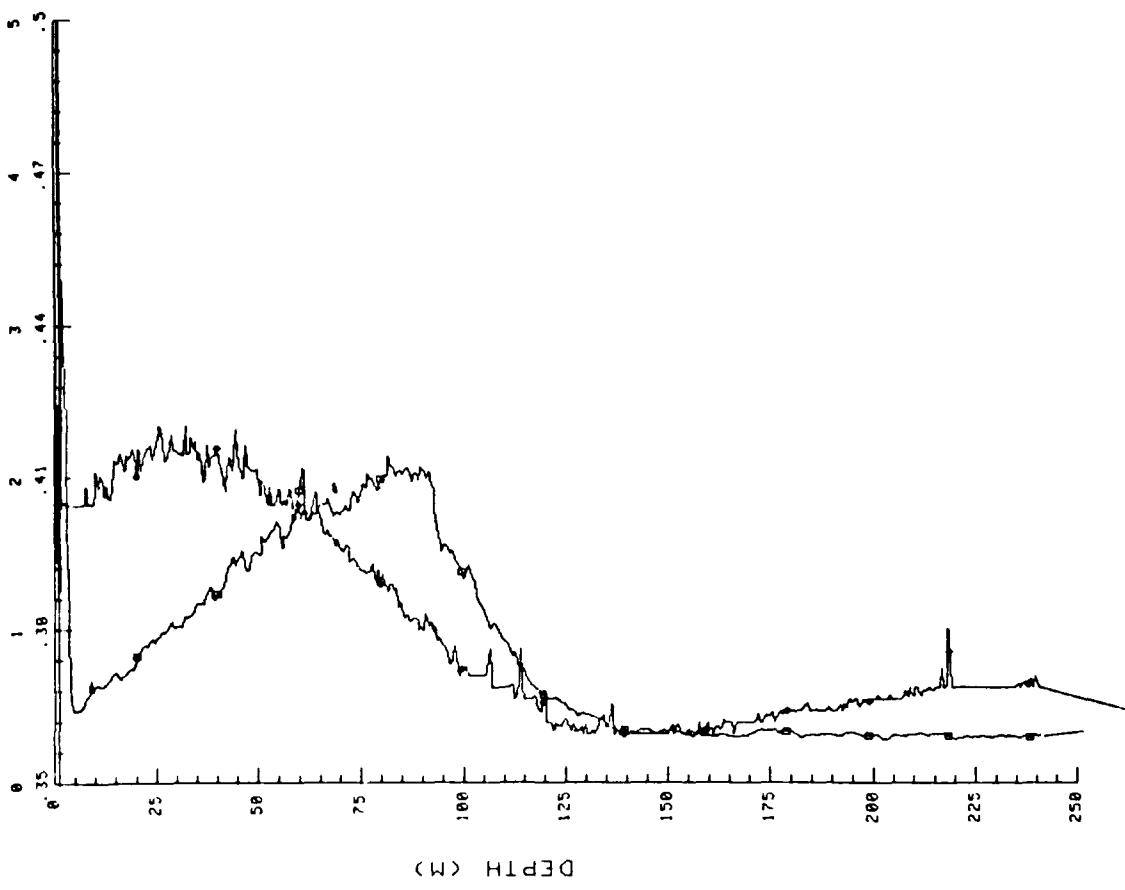




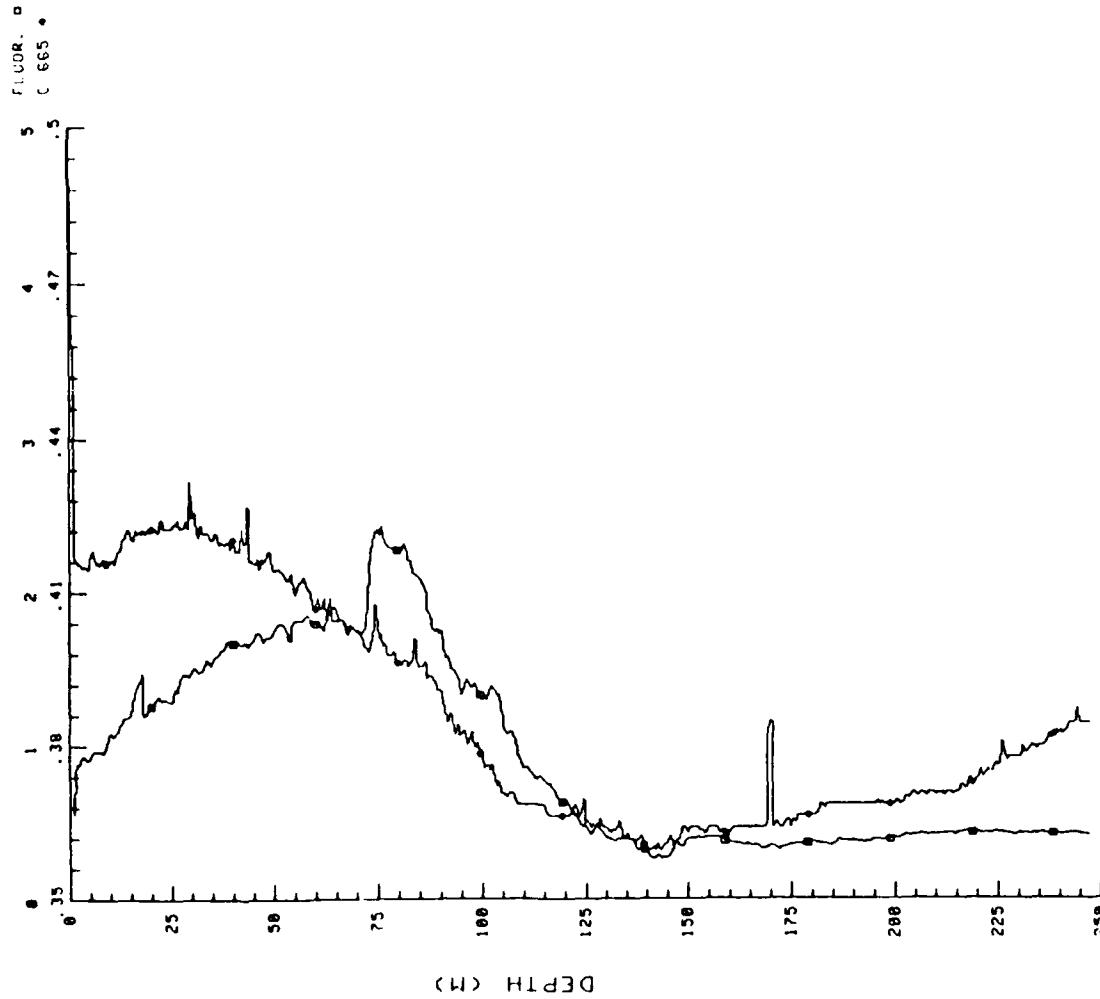
PLOTS OF BEAM ATTENUATION COEFFICIENT [C(665)],
FLUORESCENCE AND DECK IRRADIANCE



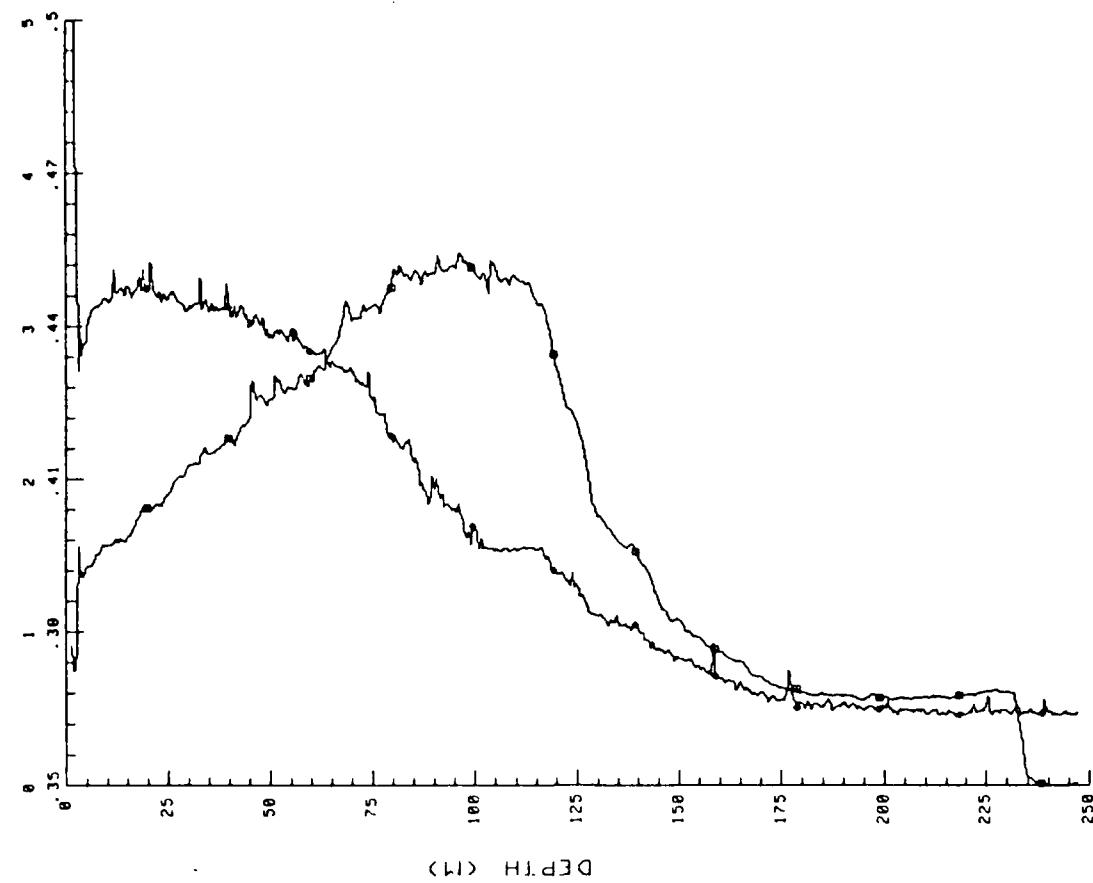
PP-9-01-84 LEG 2 STATION 4 3-~~MAP~~-84 1836 L UP CAST
LAT 110°46' 4.000N LONG 124.000E



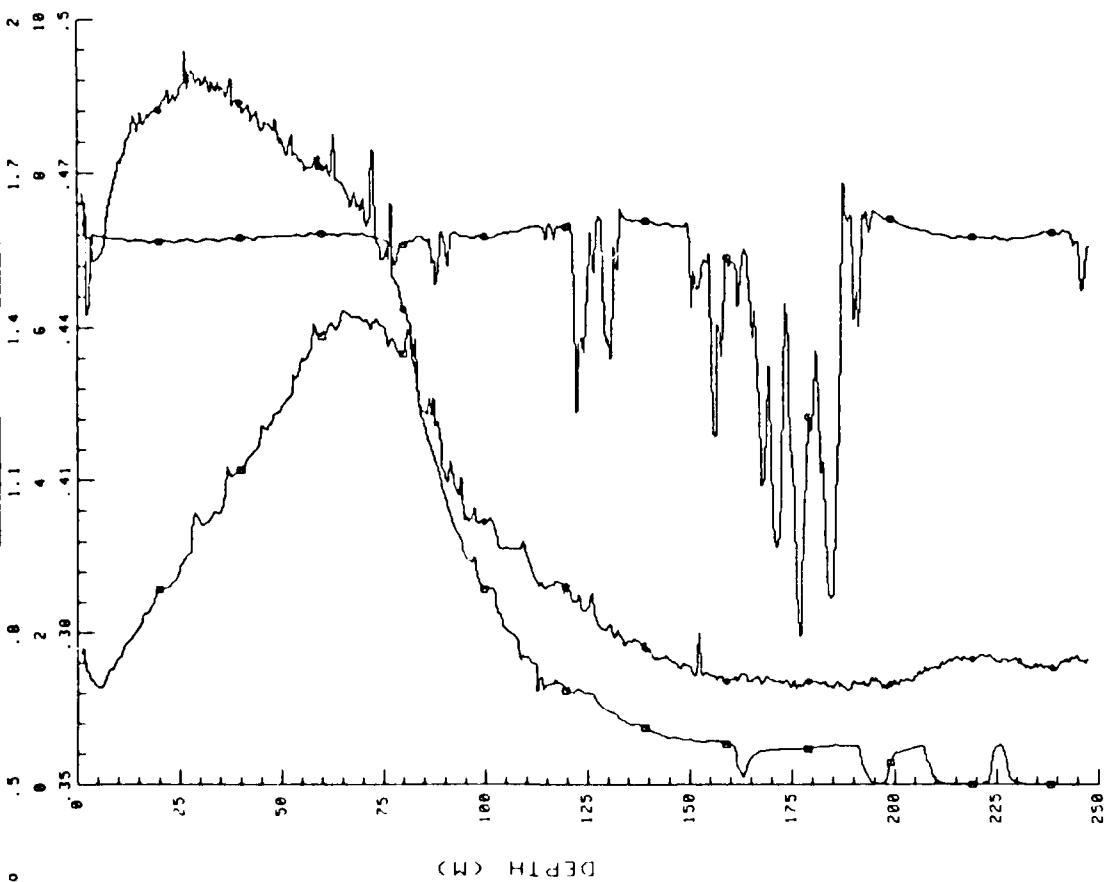
PP-9-01-84 LEG 2 STATION 3 2-~~MAP~~-84 1600 L UP CAST
LAT 110°46' 4.000N LONG 124.000E

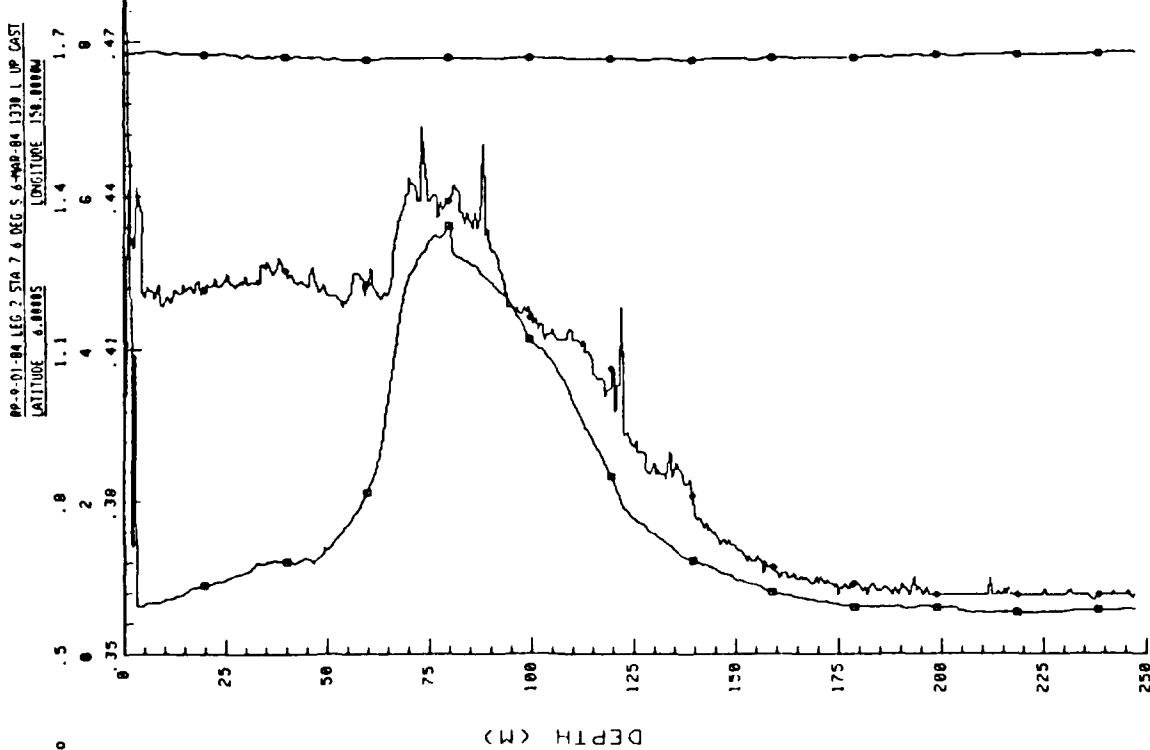
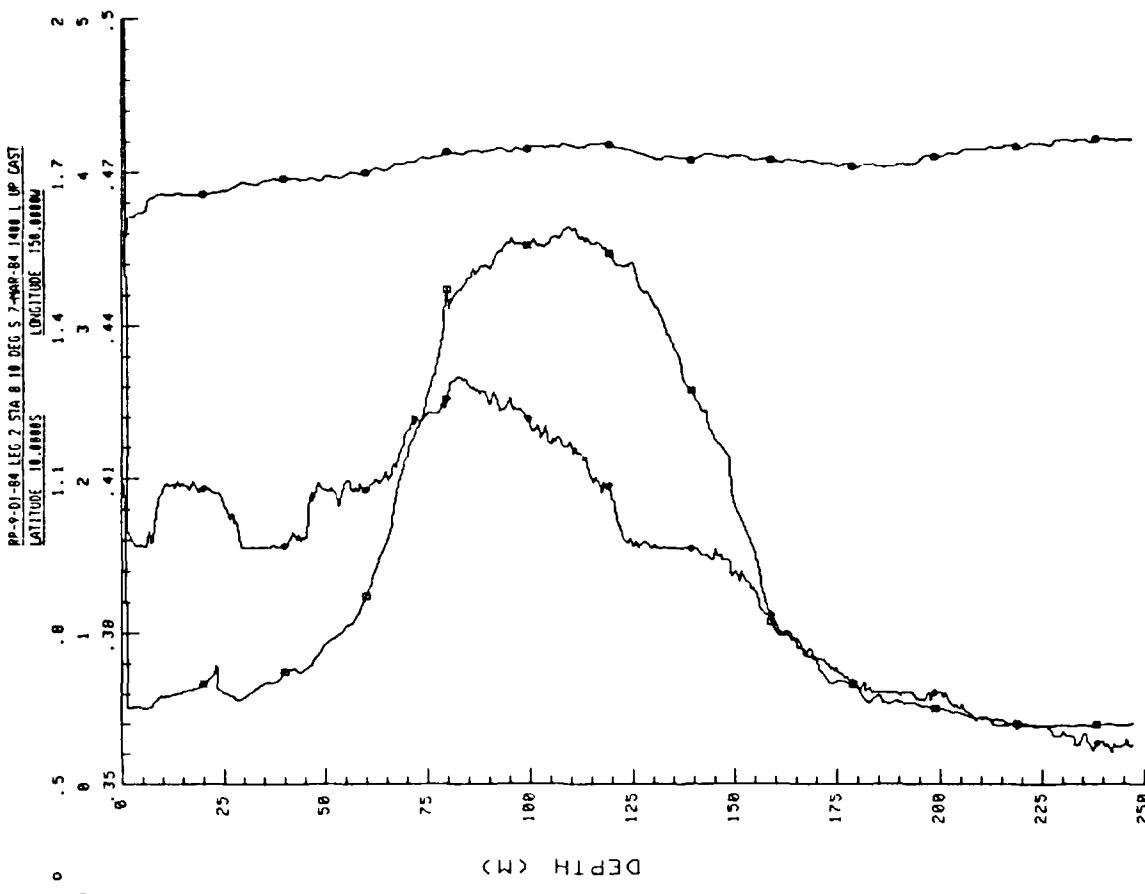


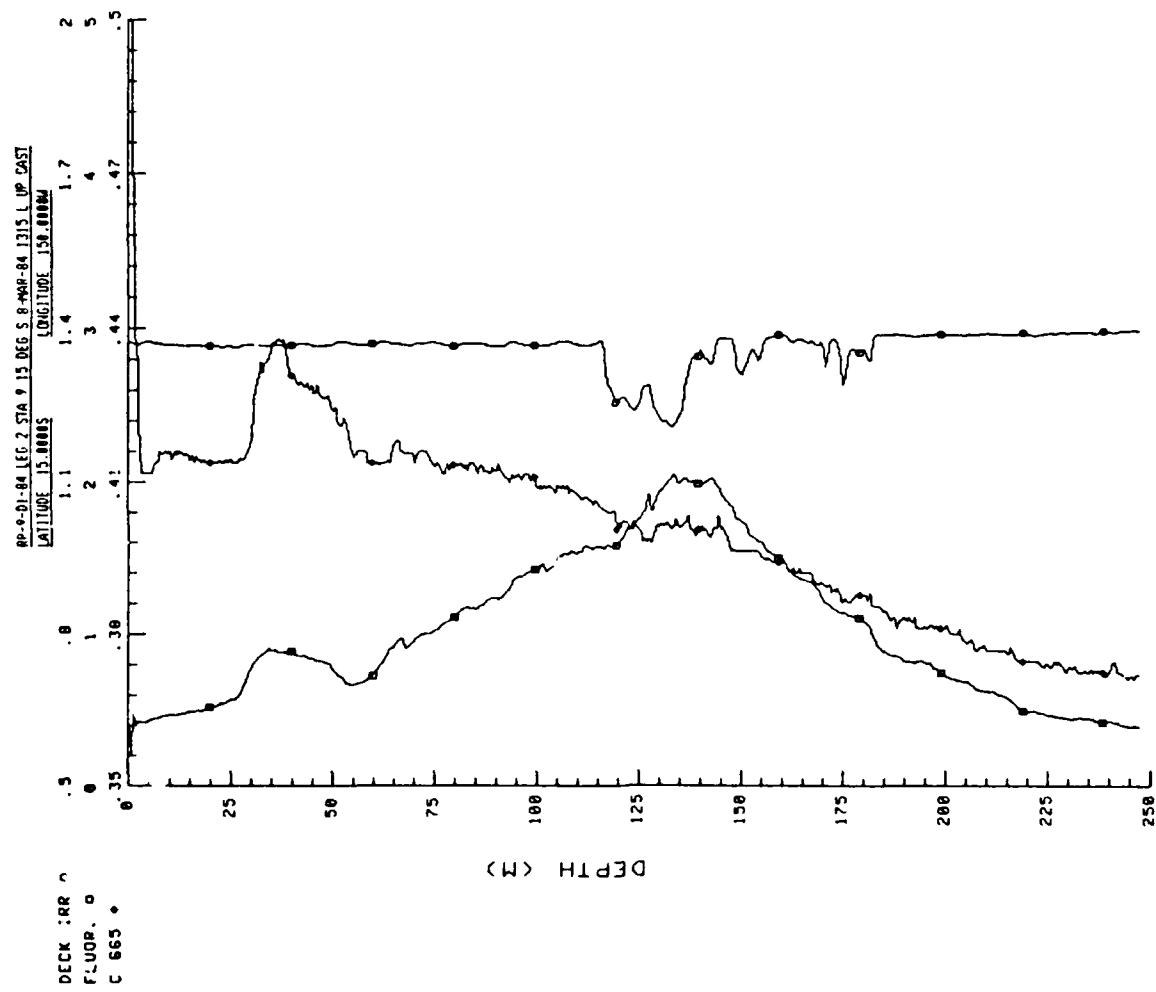
PP 0-01-PA LFF 2 STA. 6 2 065 5 446 04 1701, 01 00005
LONGITUDE 2.00005



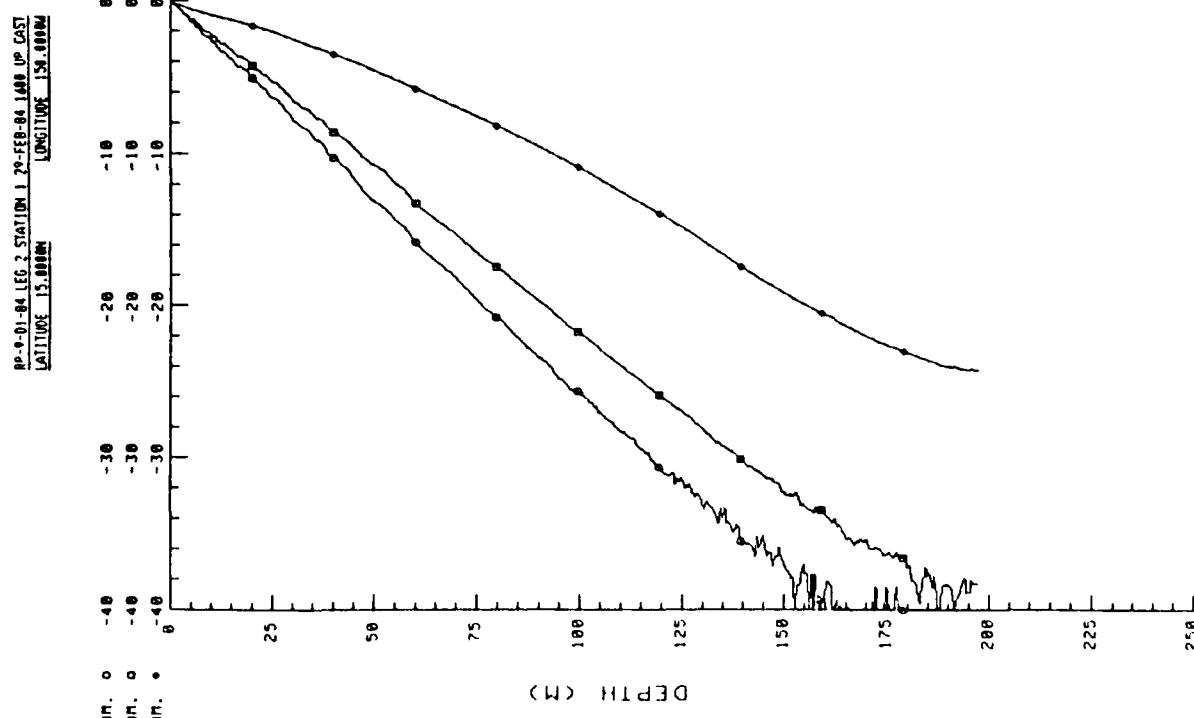
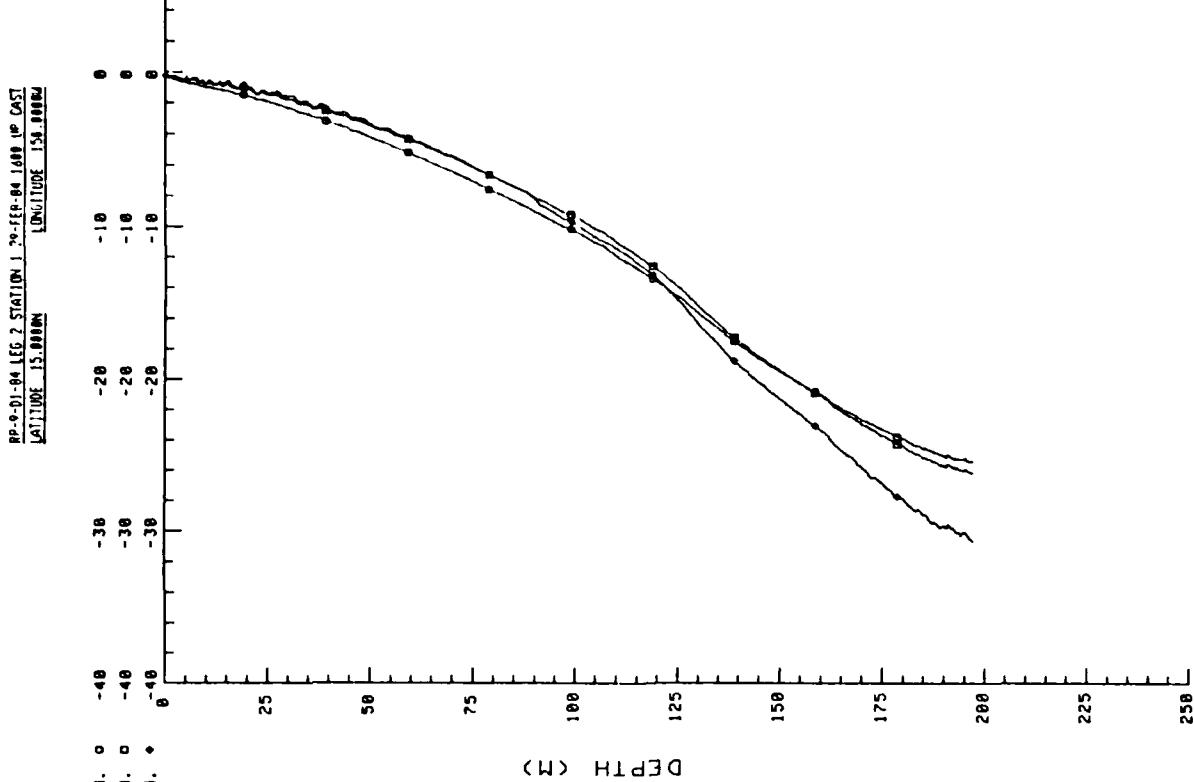
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LONGITUDE 1.9 00005

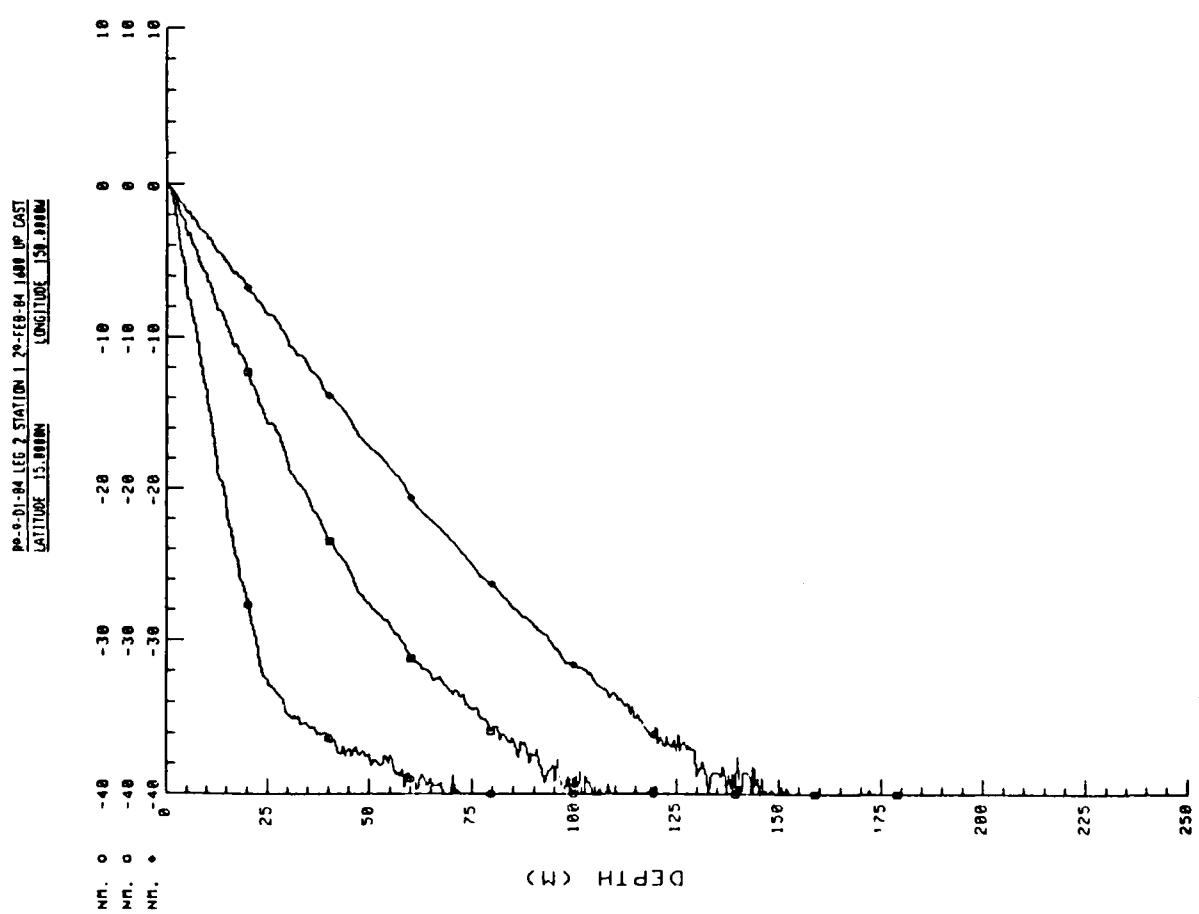
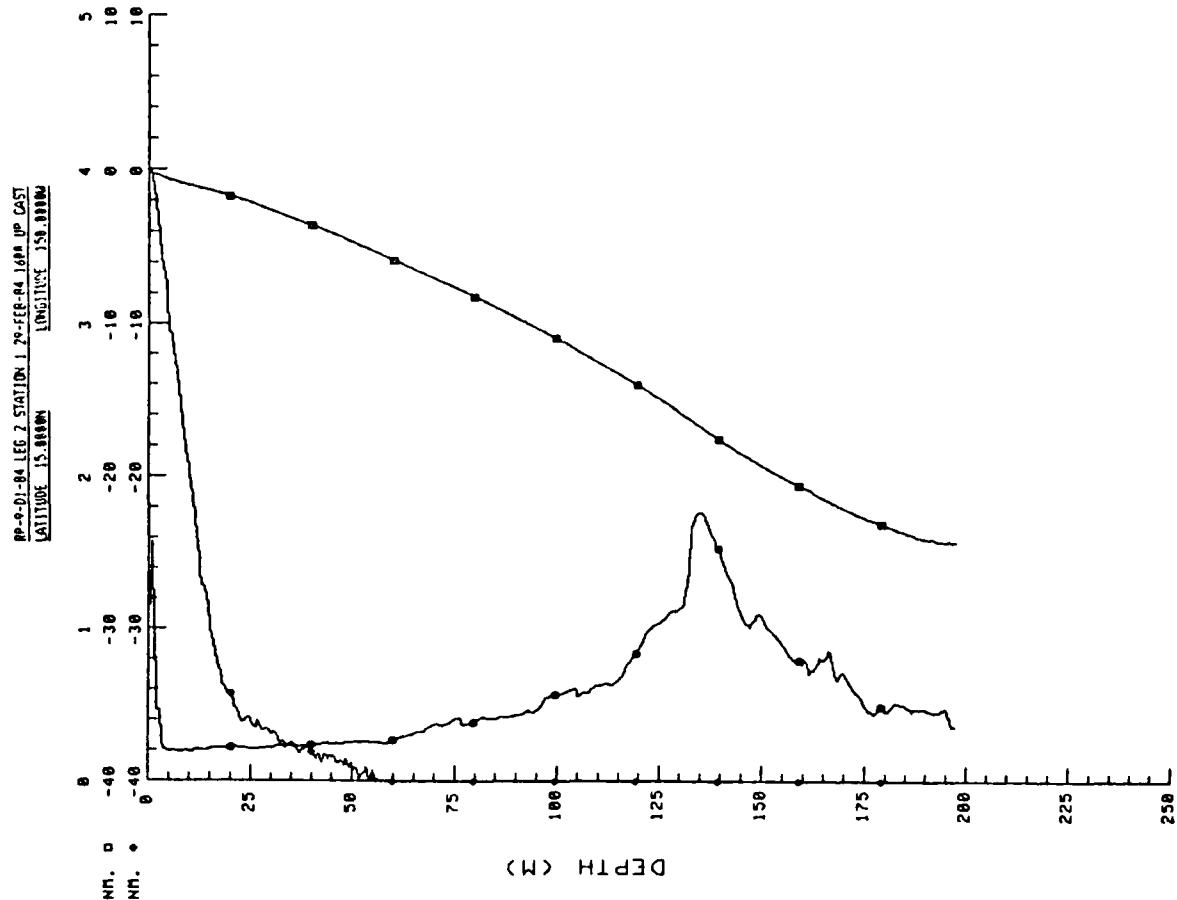


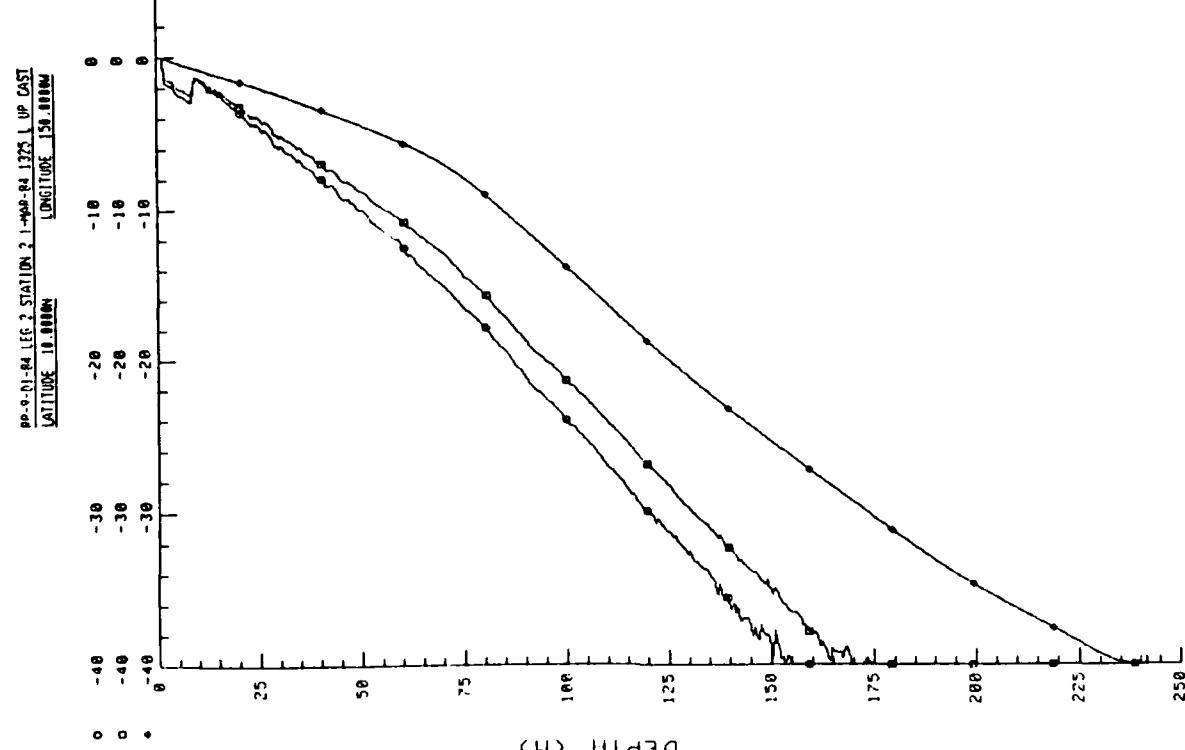
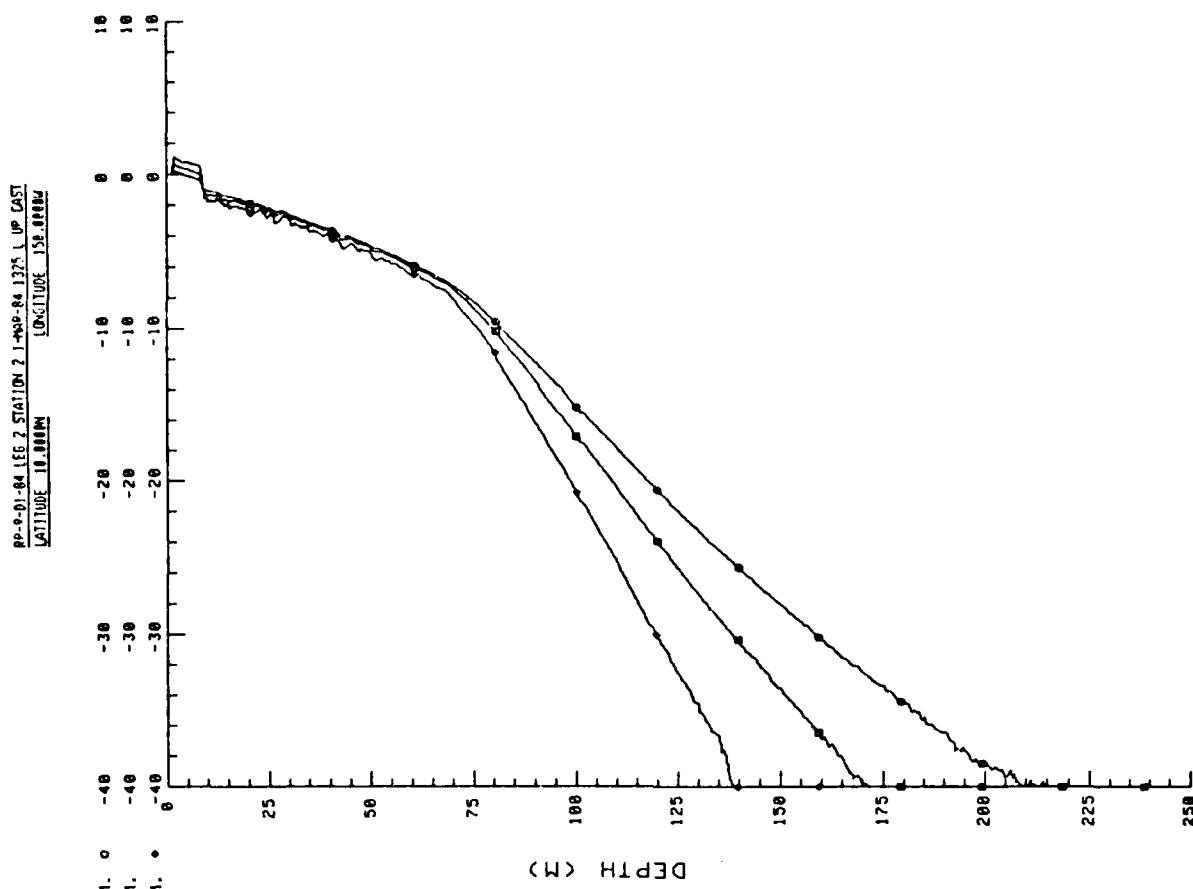


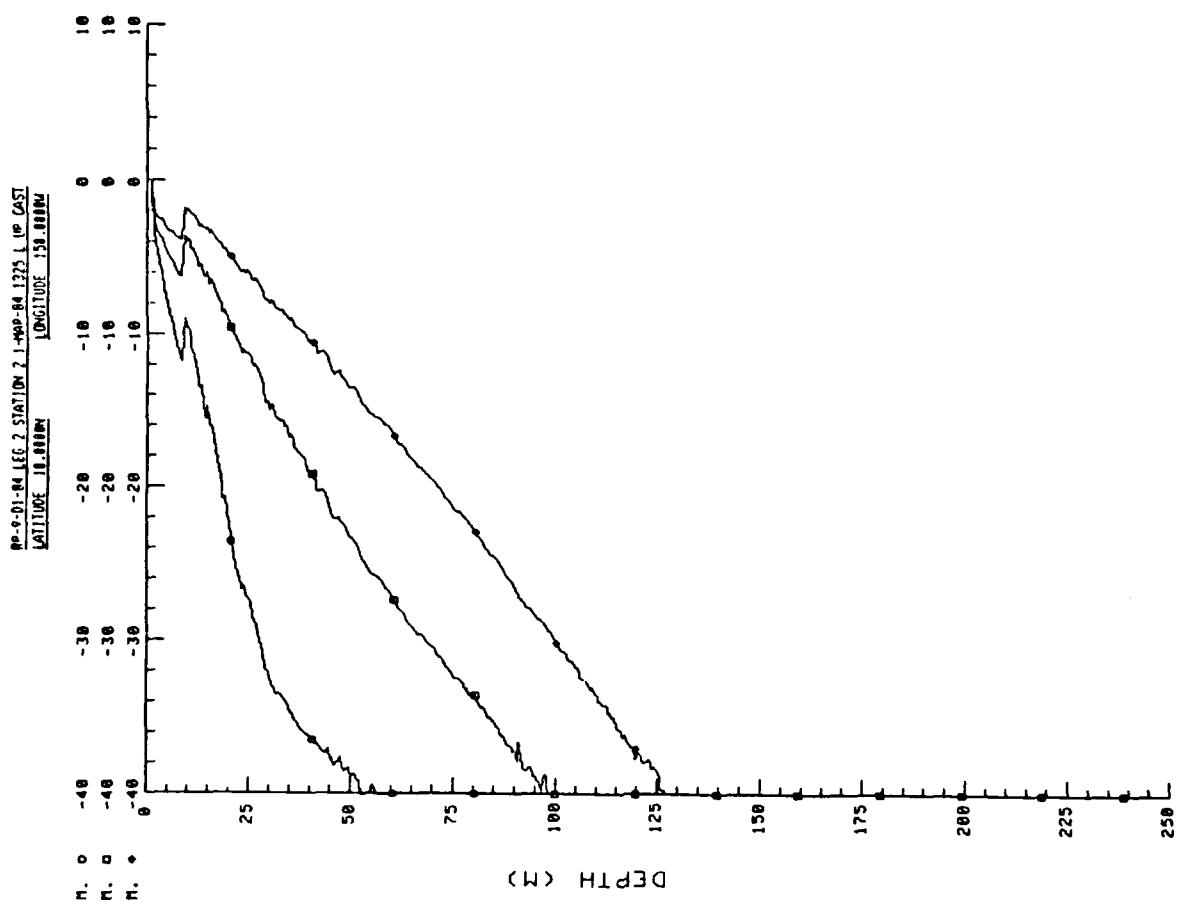
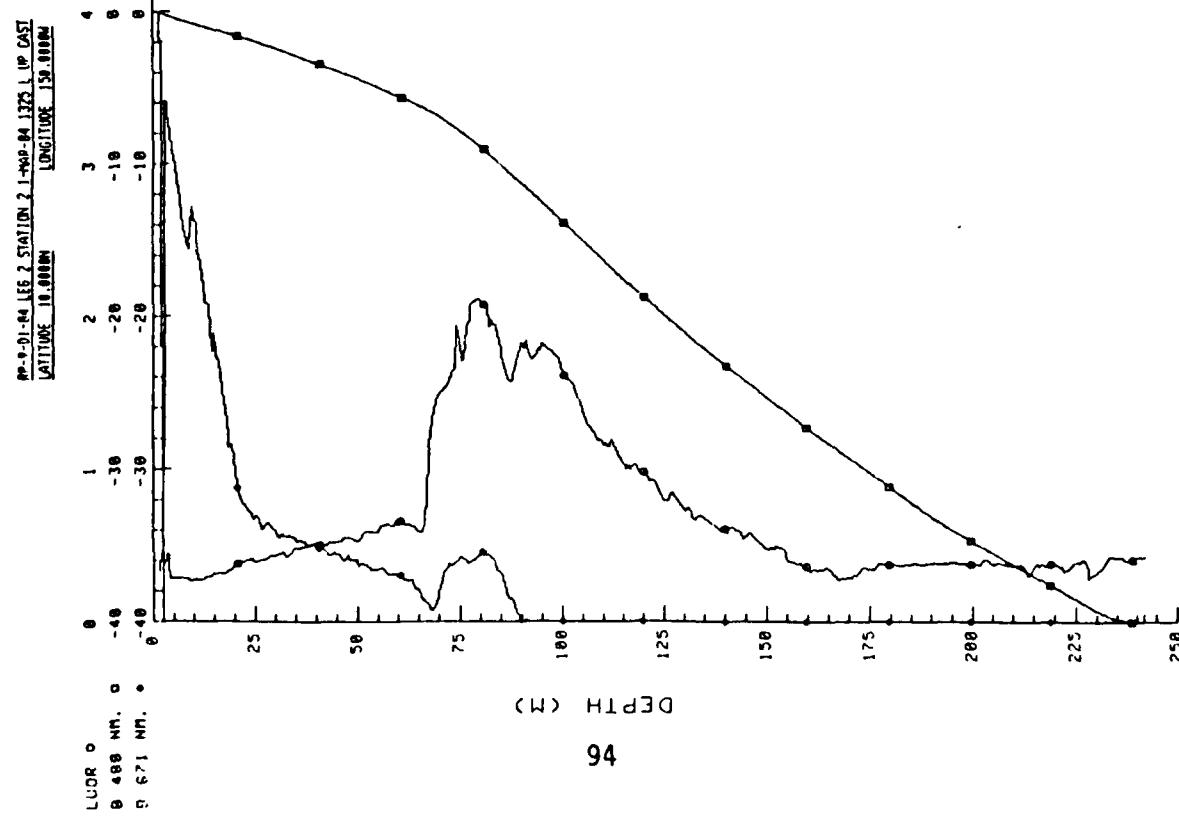


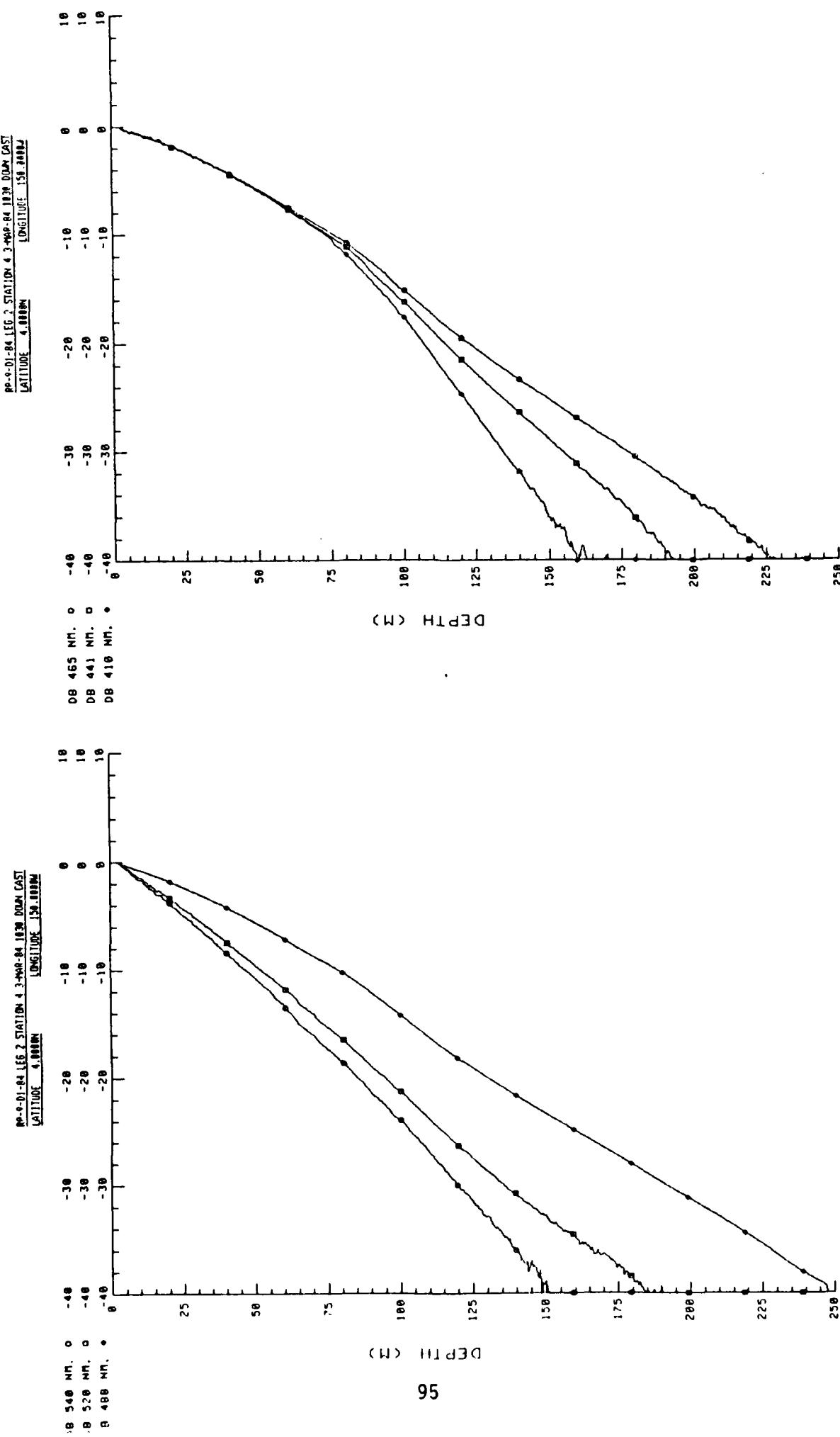
IRRADIANCE ATTENUATION IN dB PLOTS

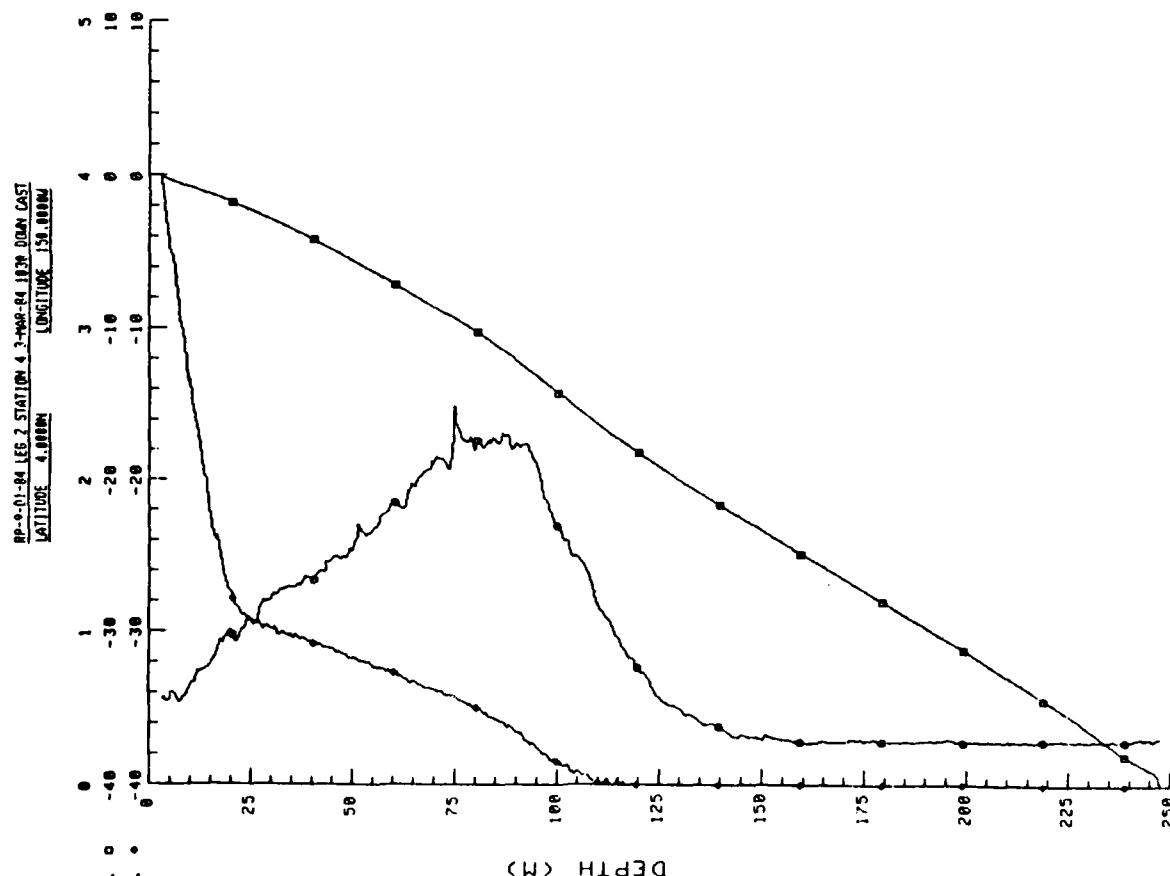
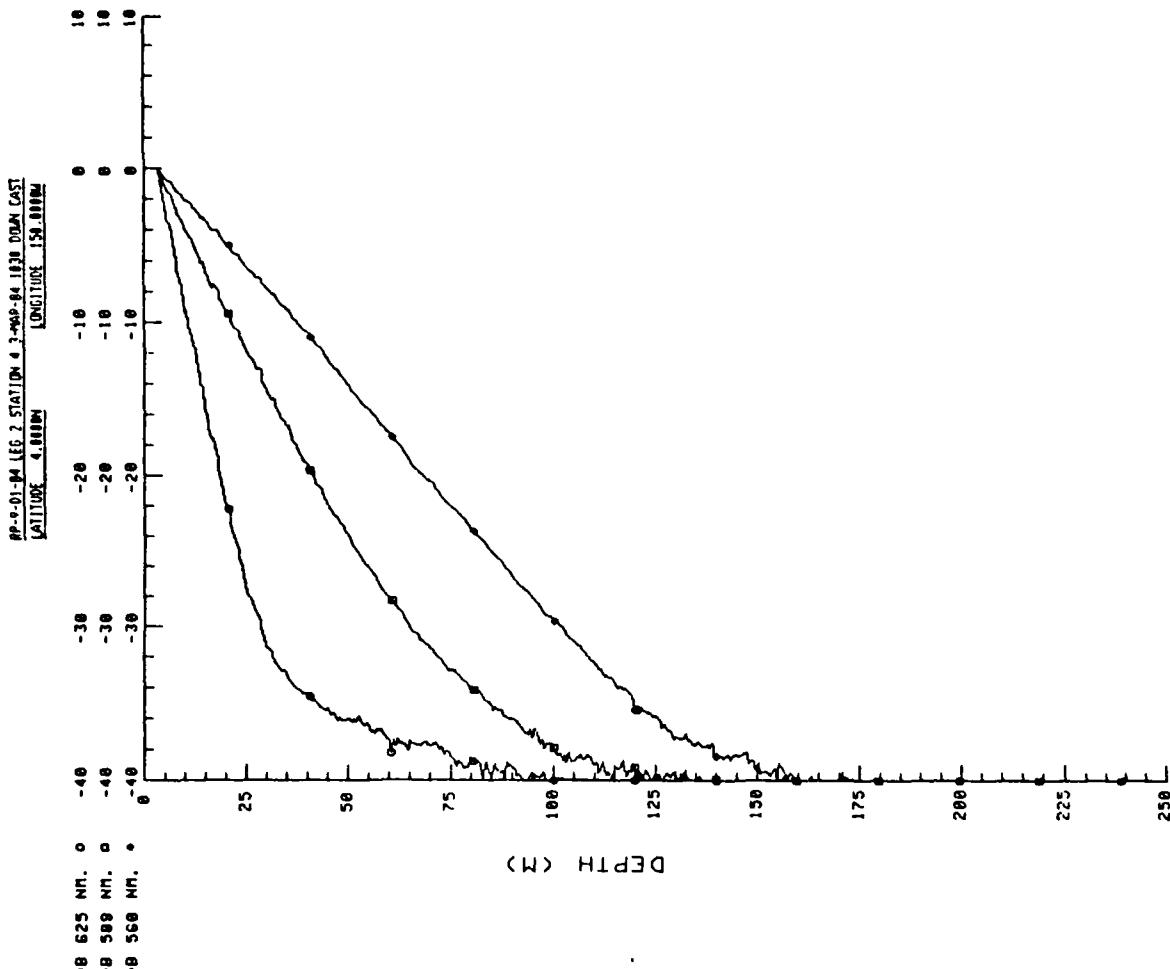


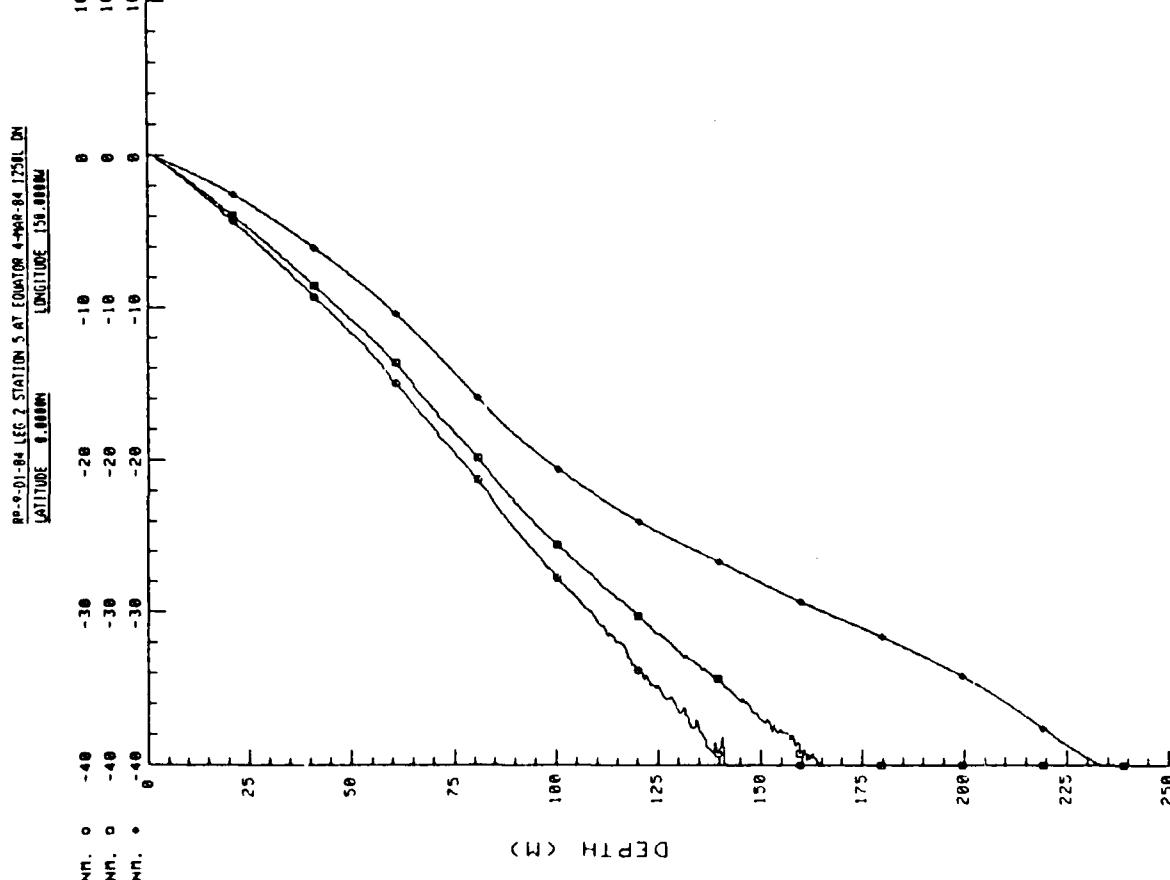
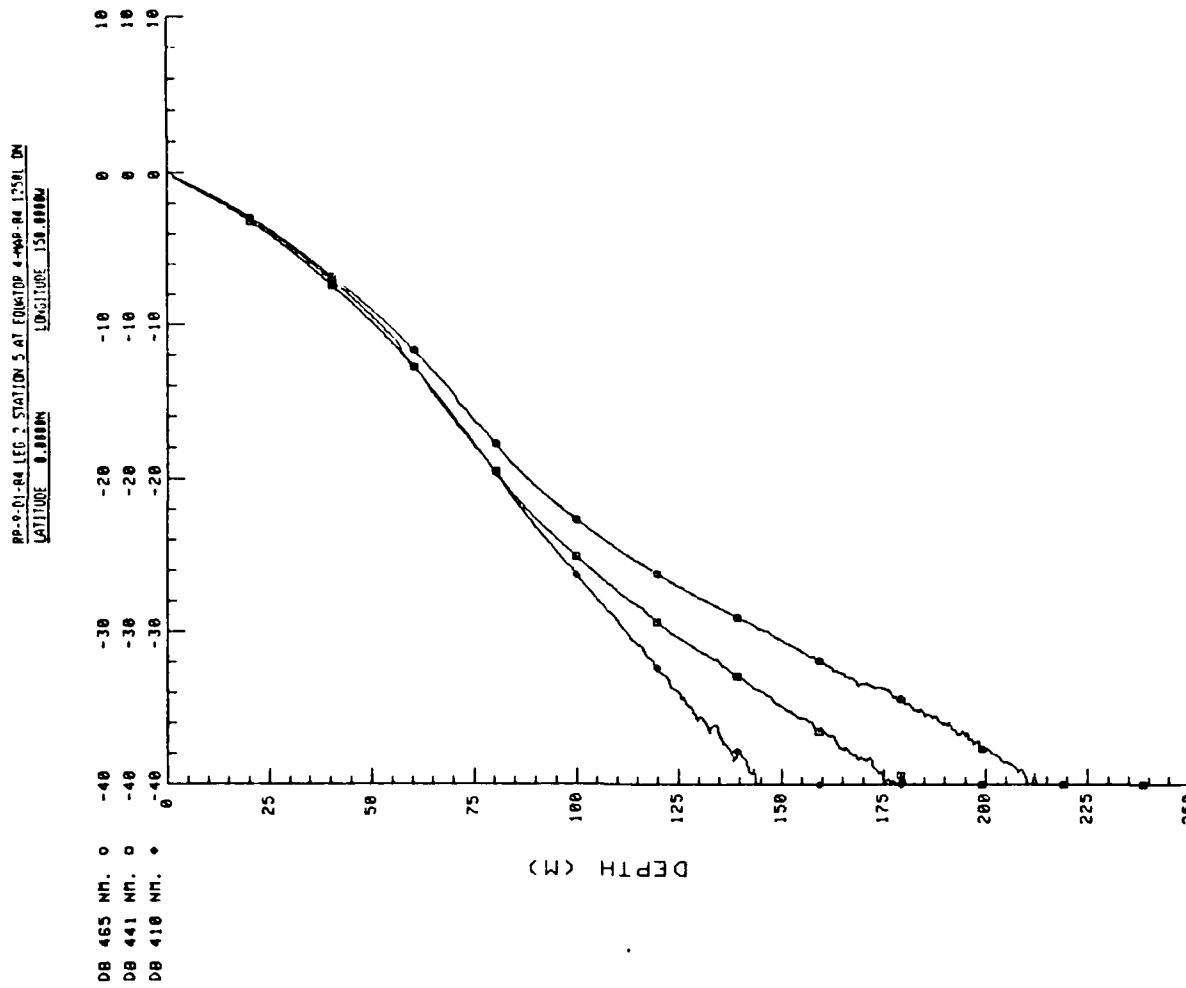


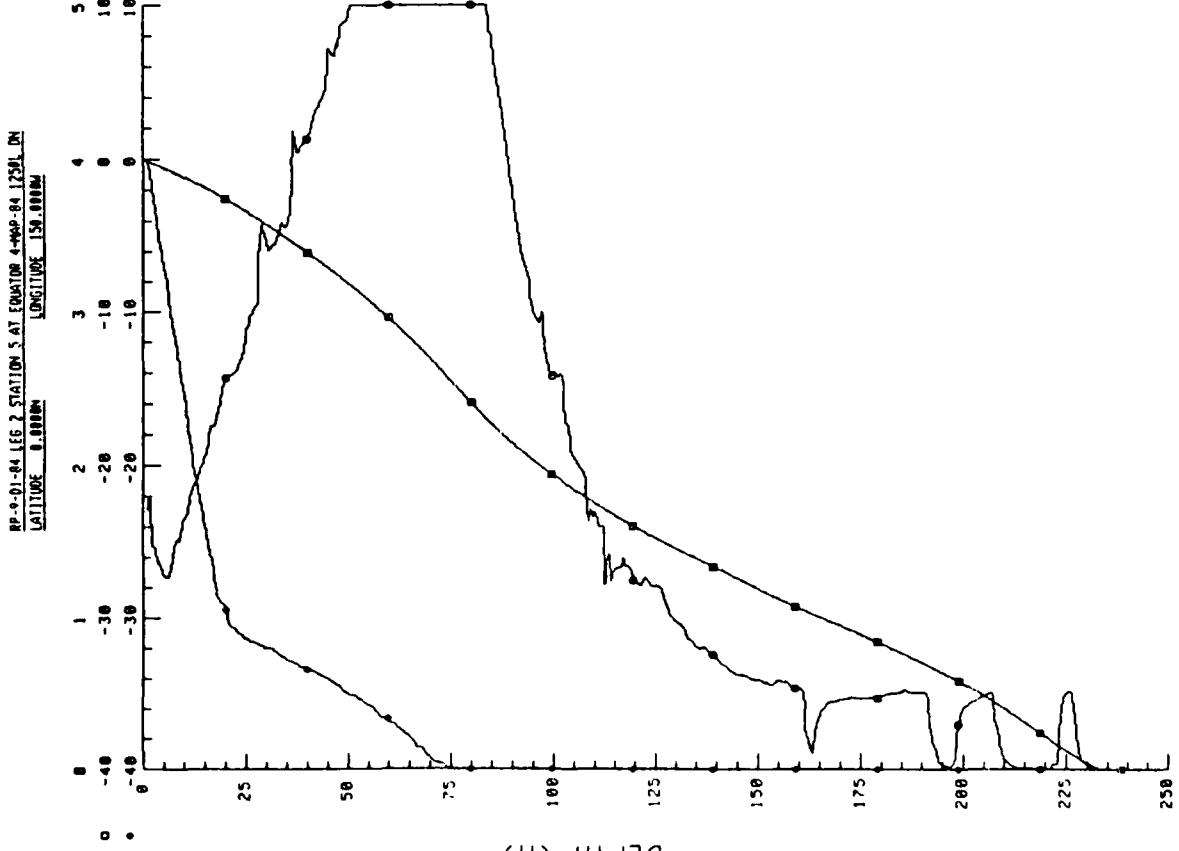
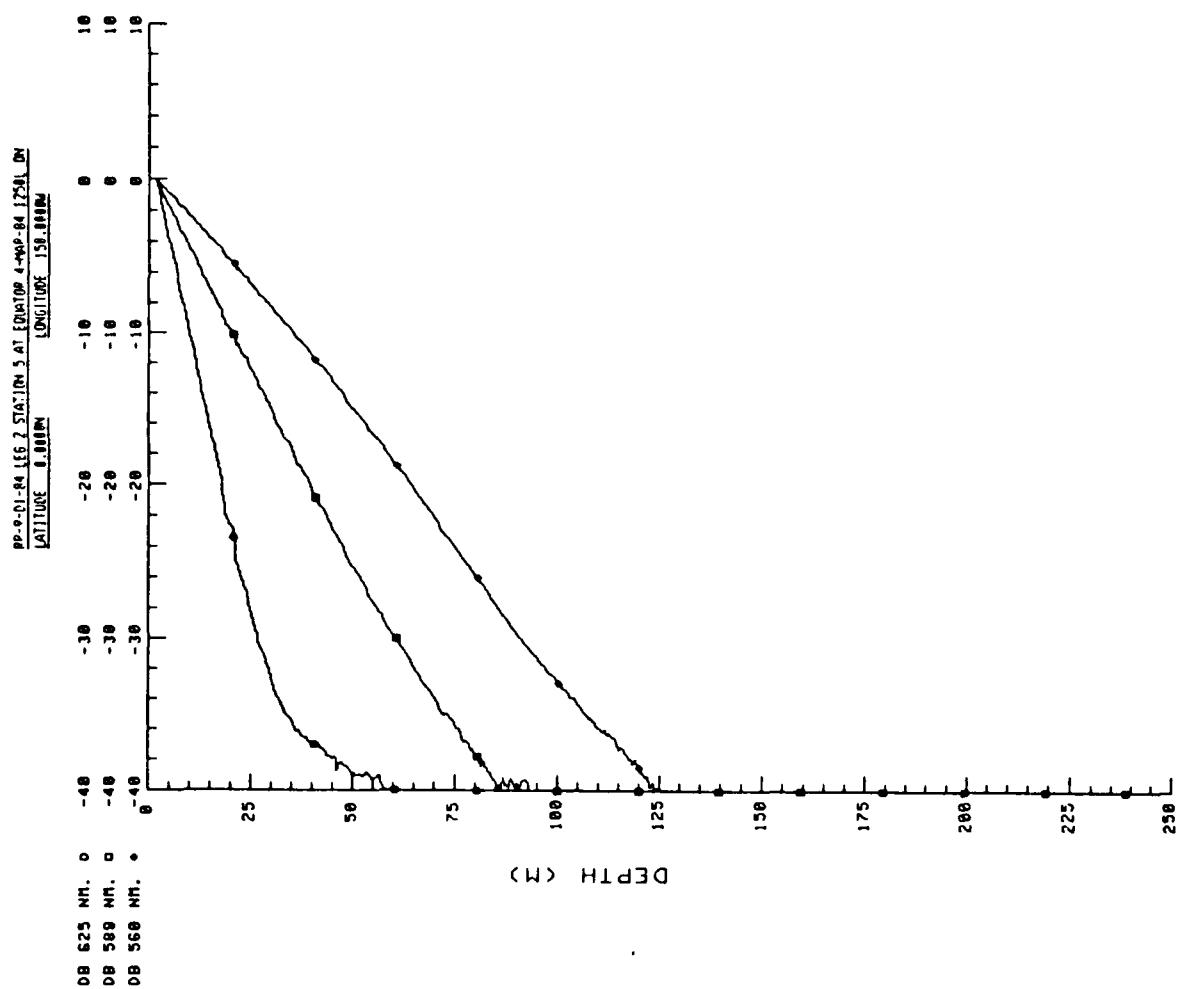


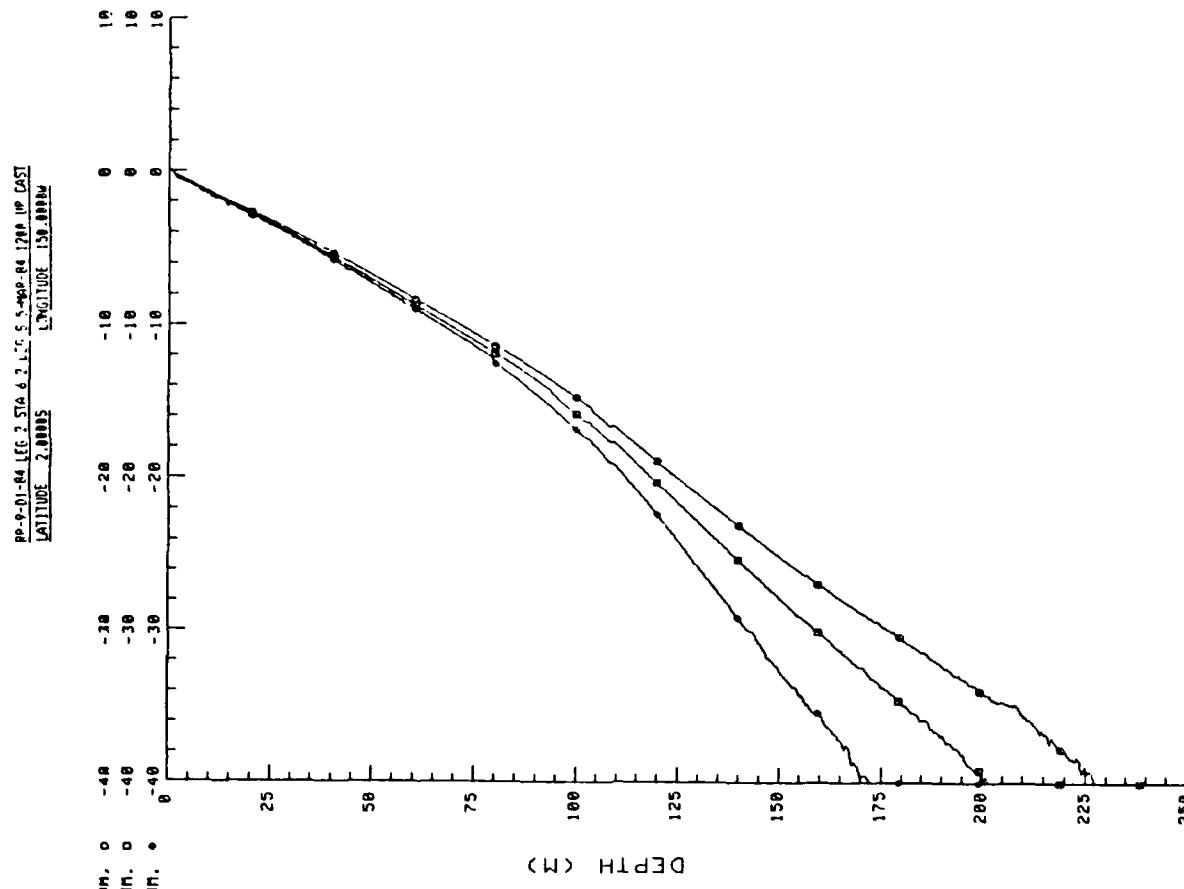
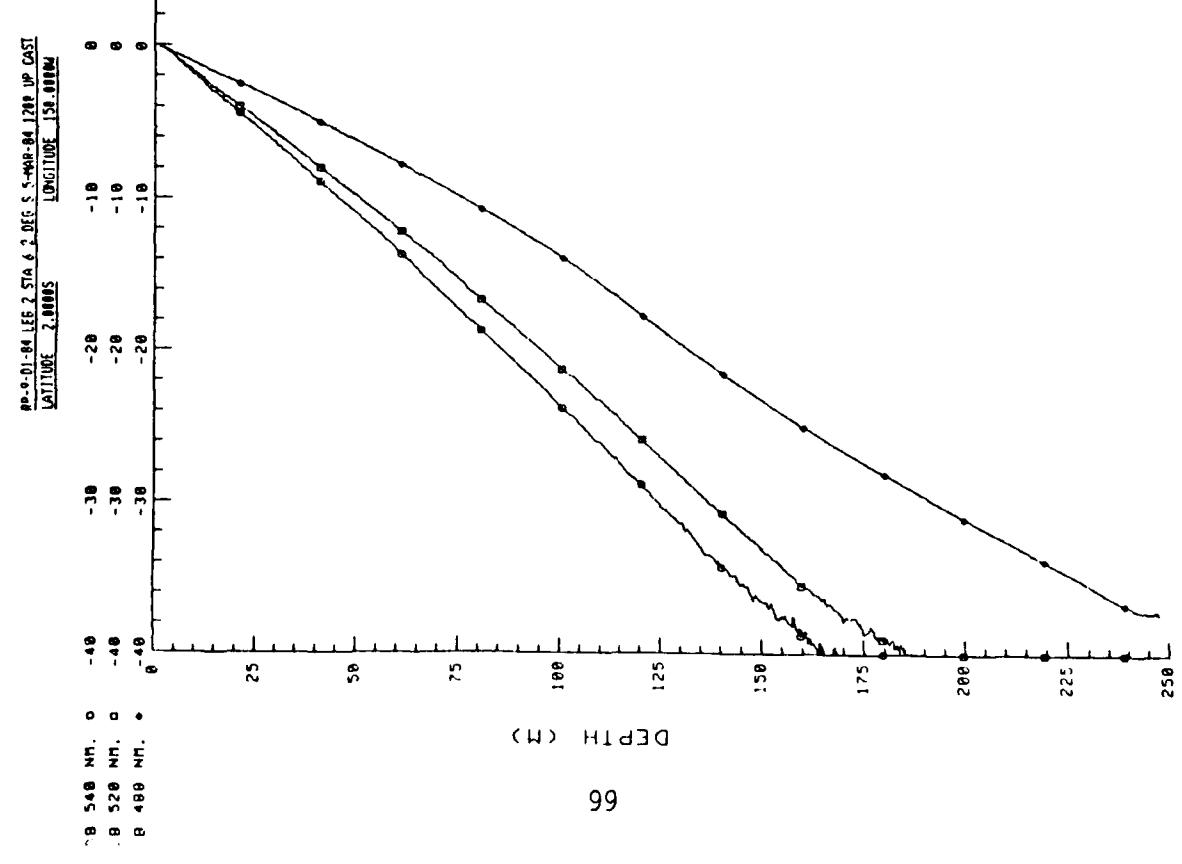


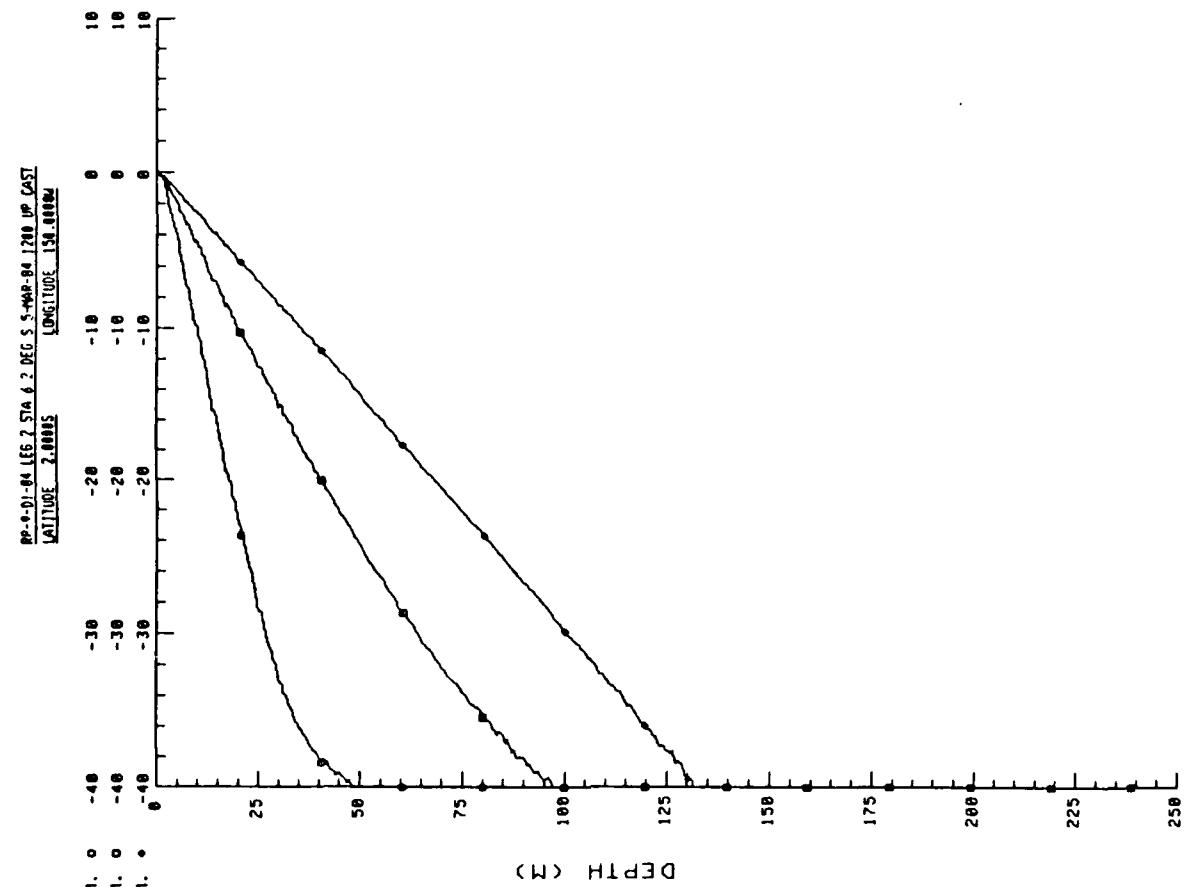
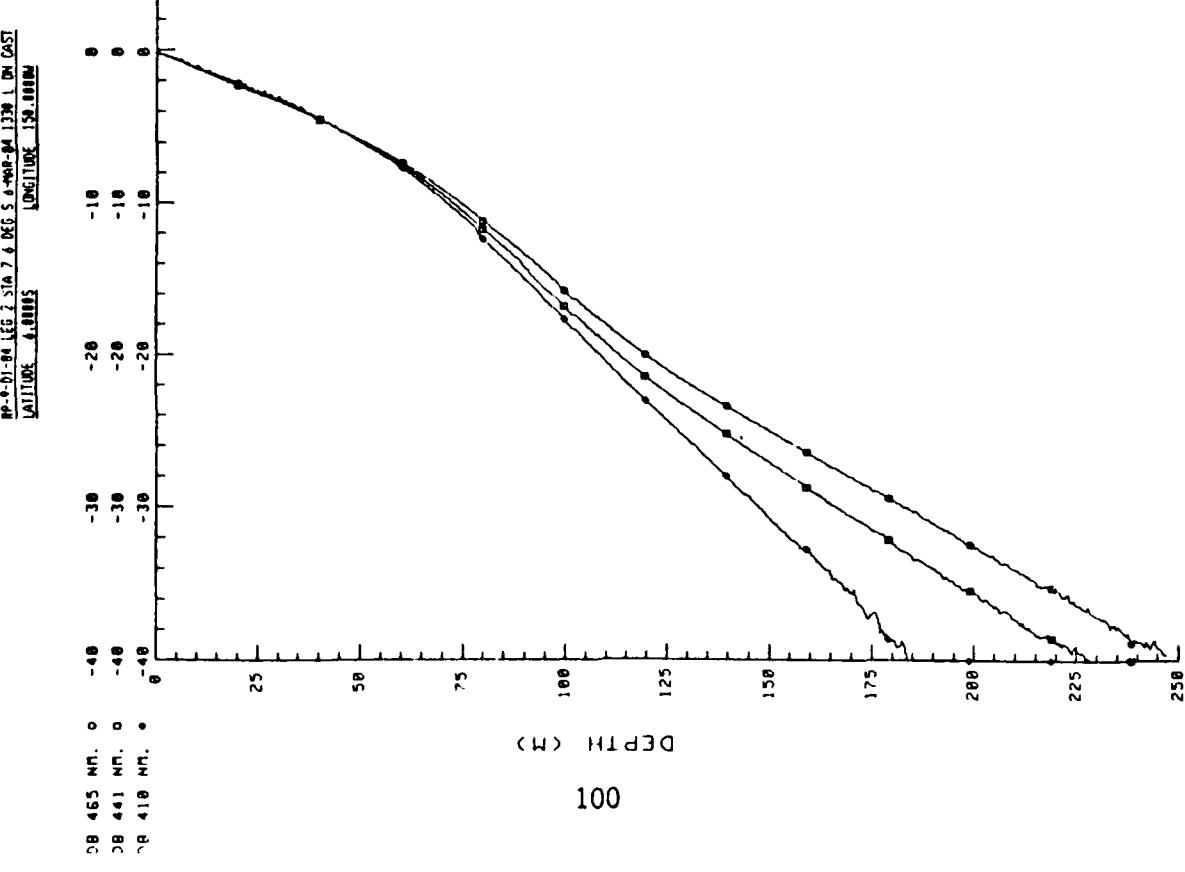


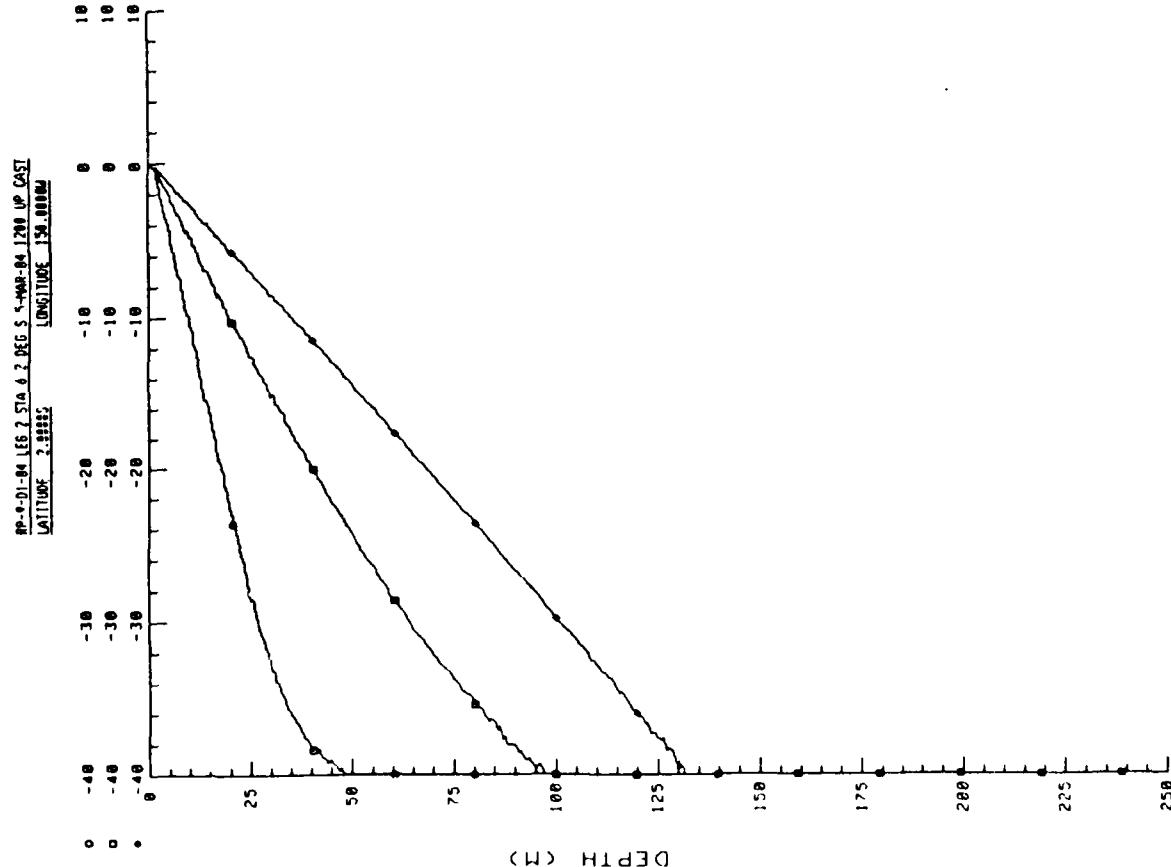
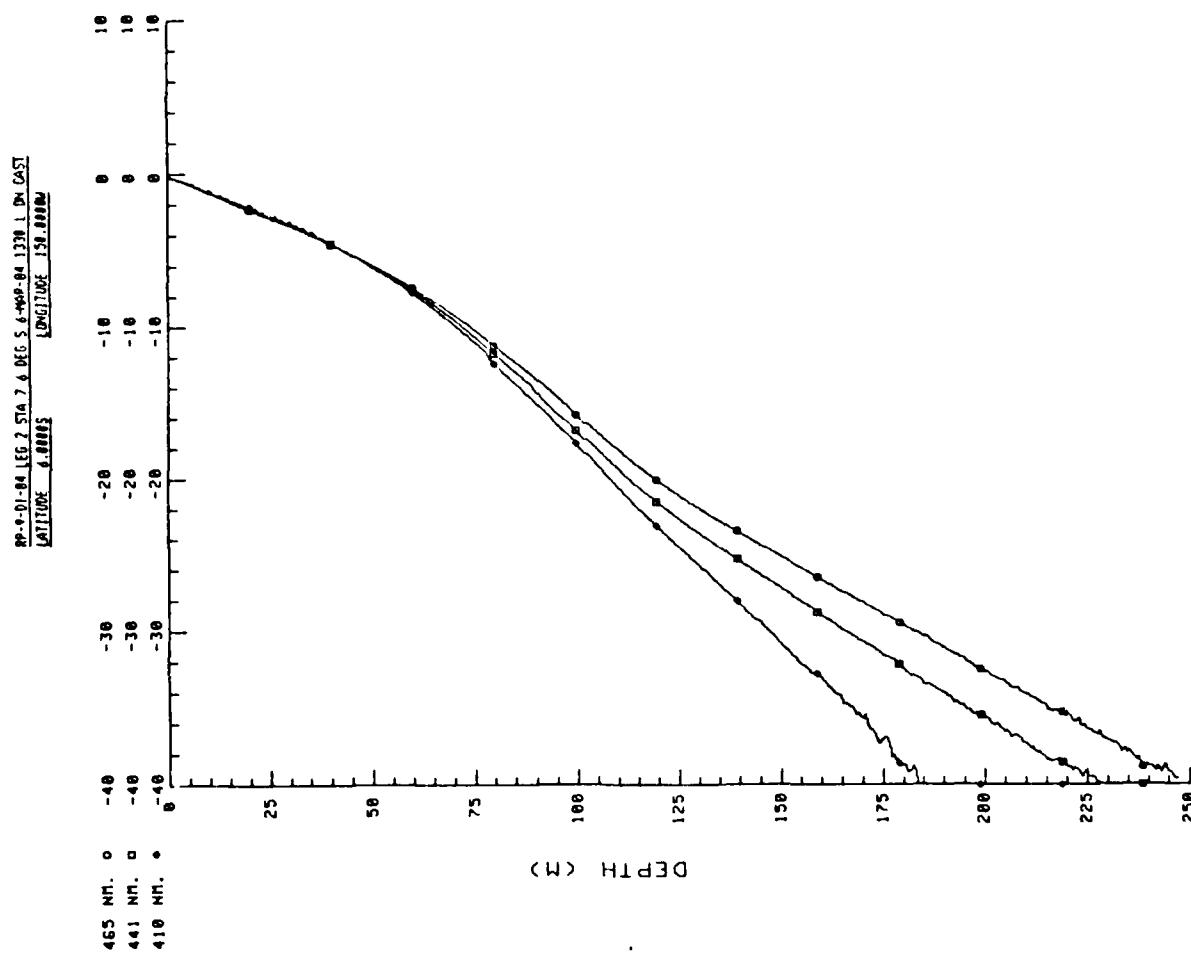


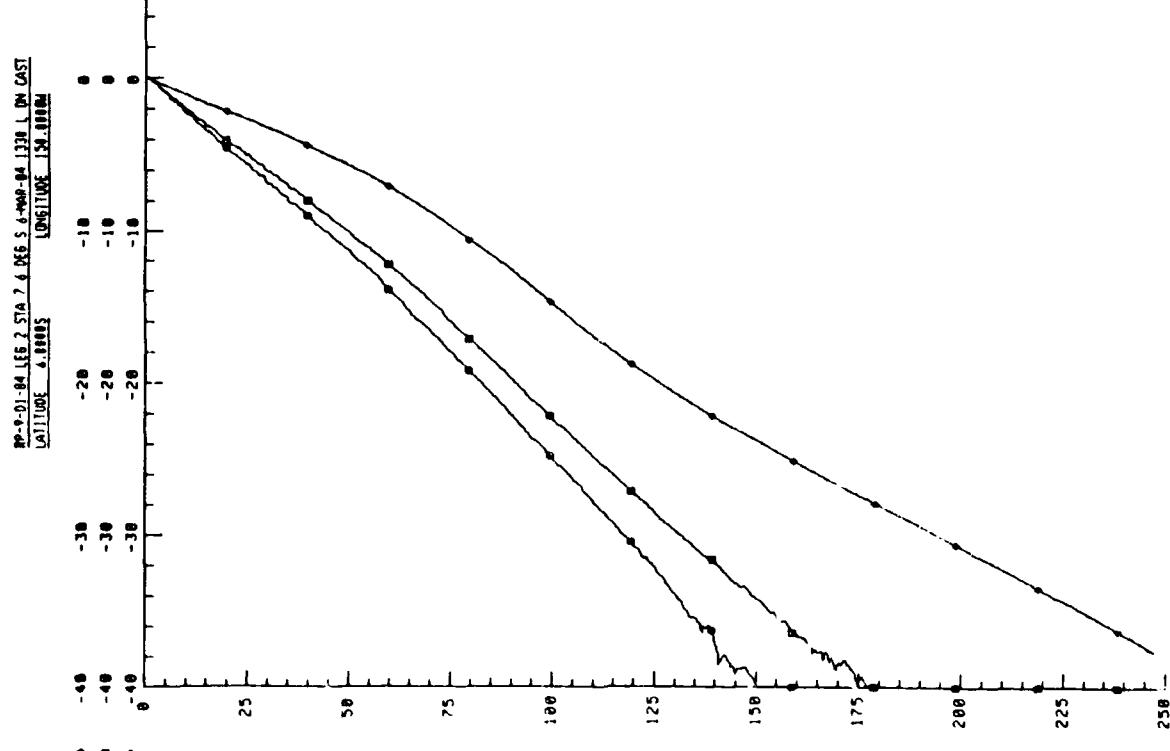
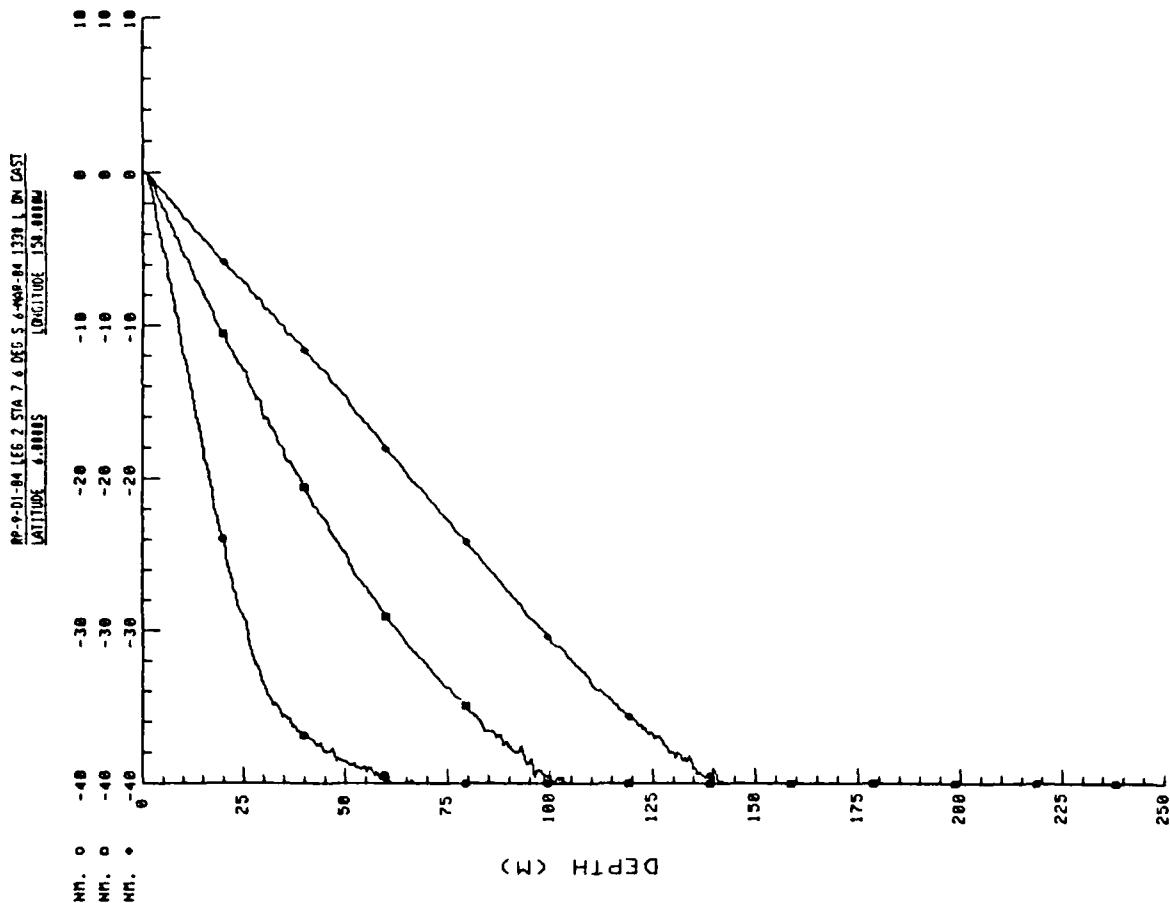


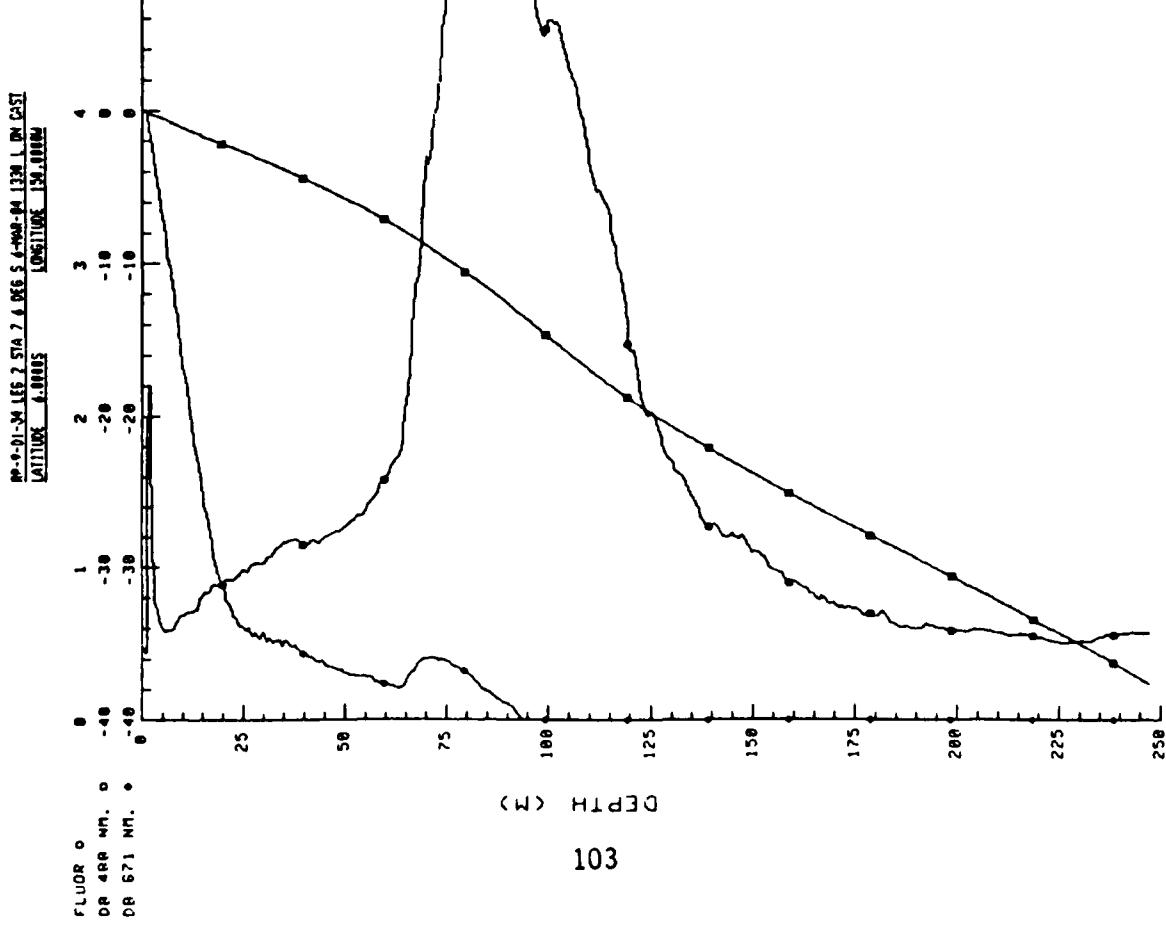
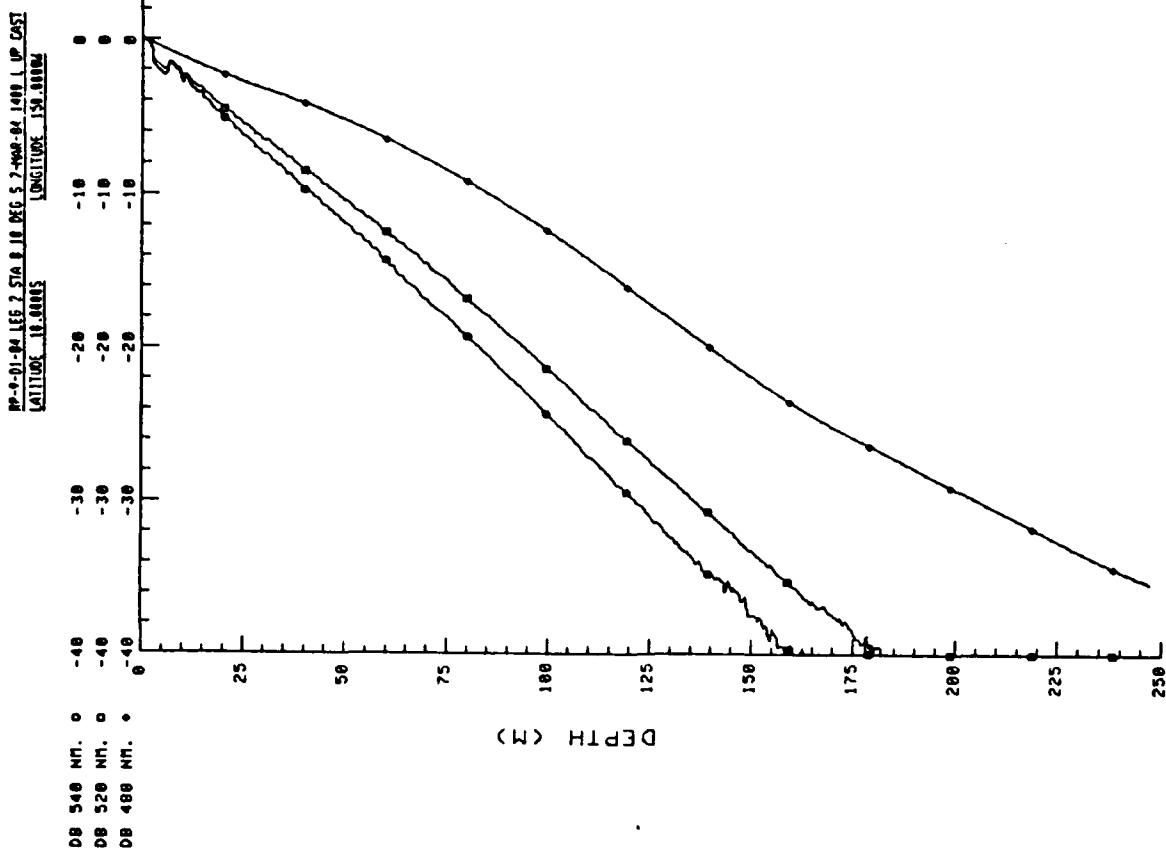


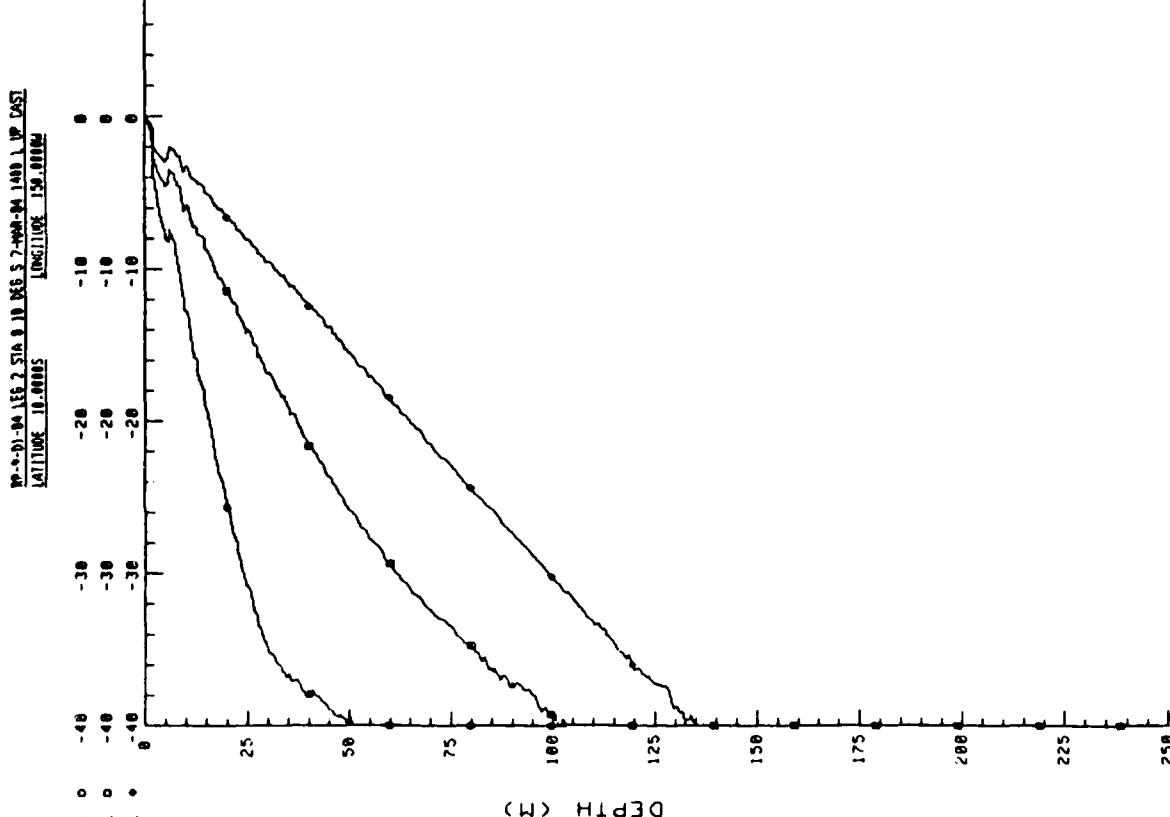
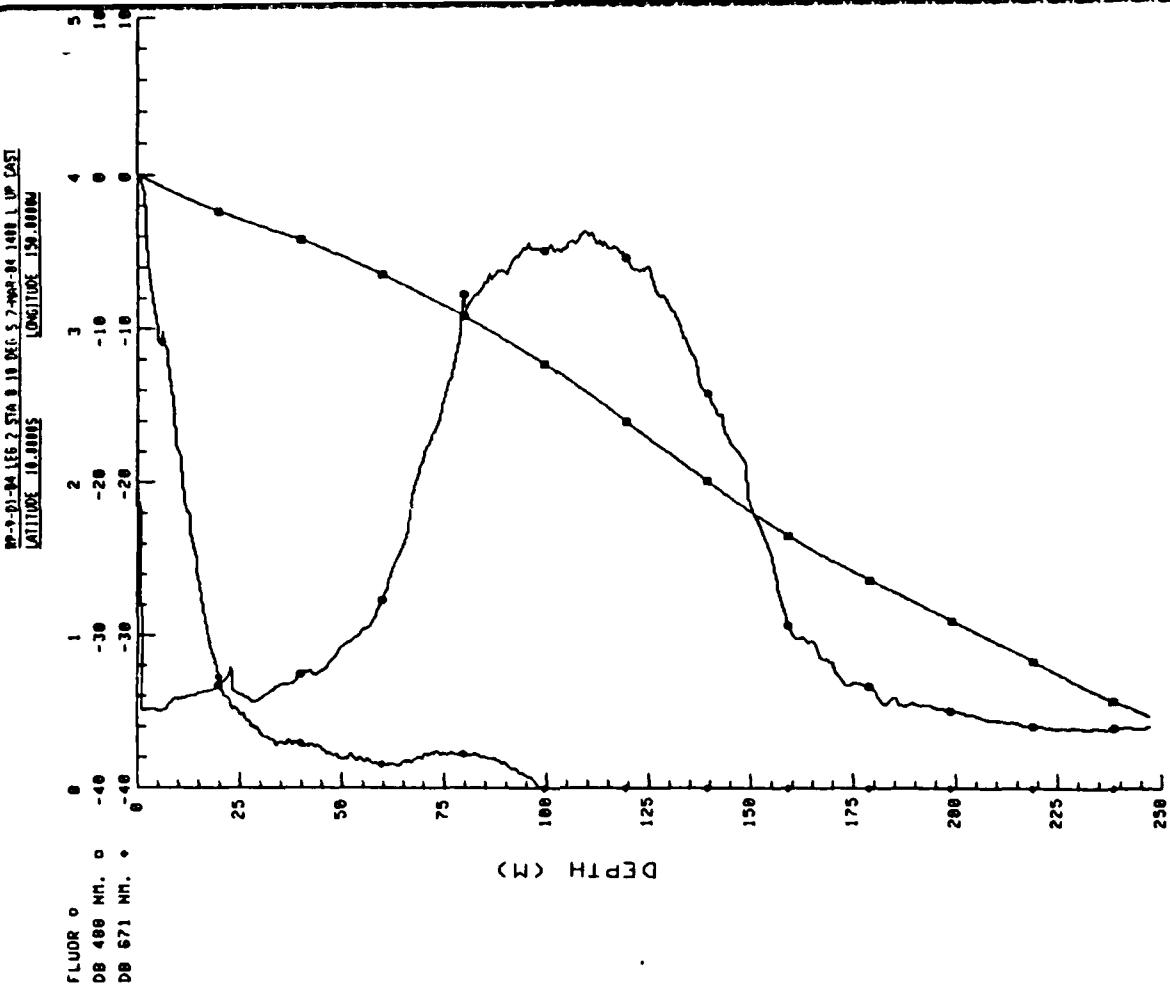


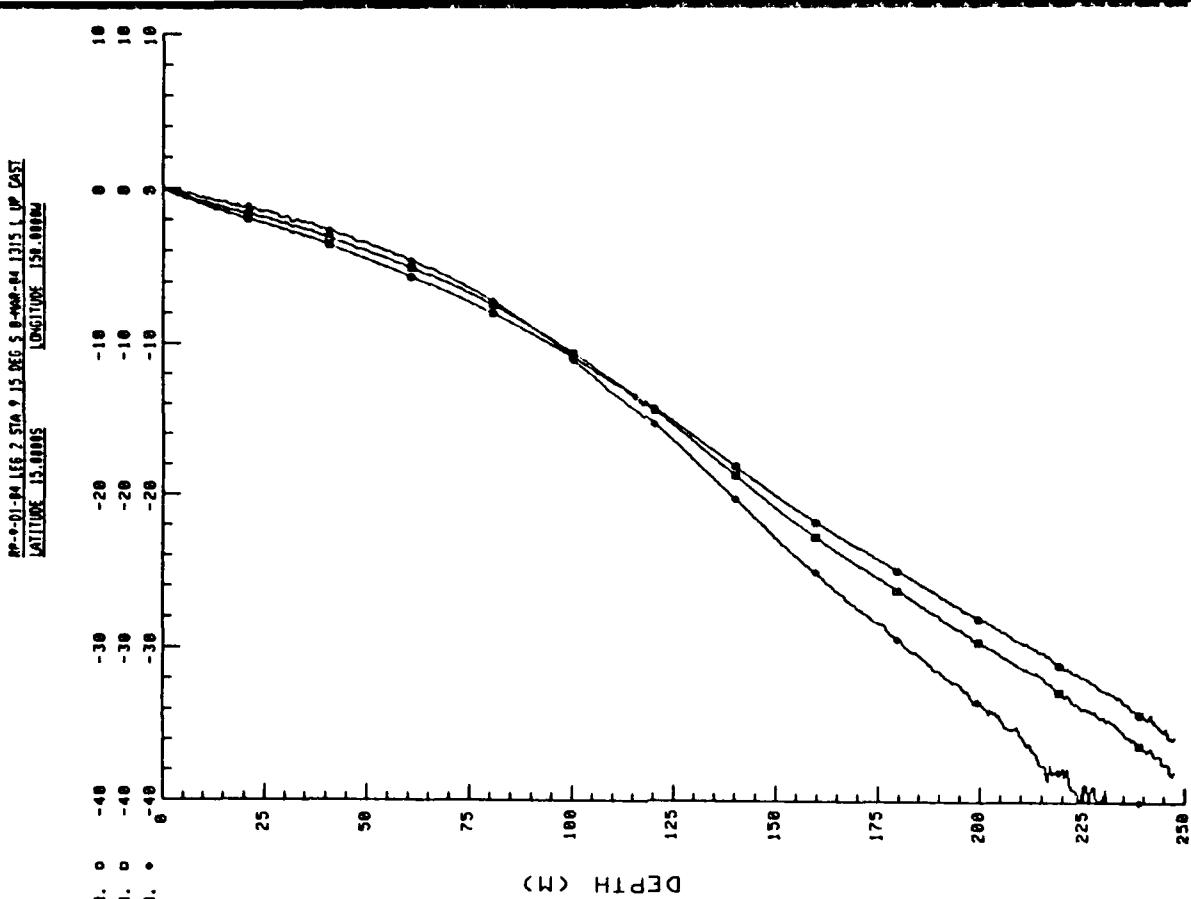
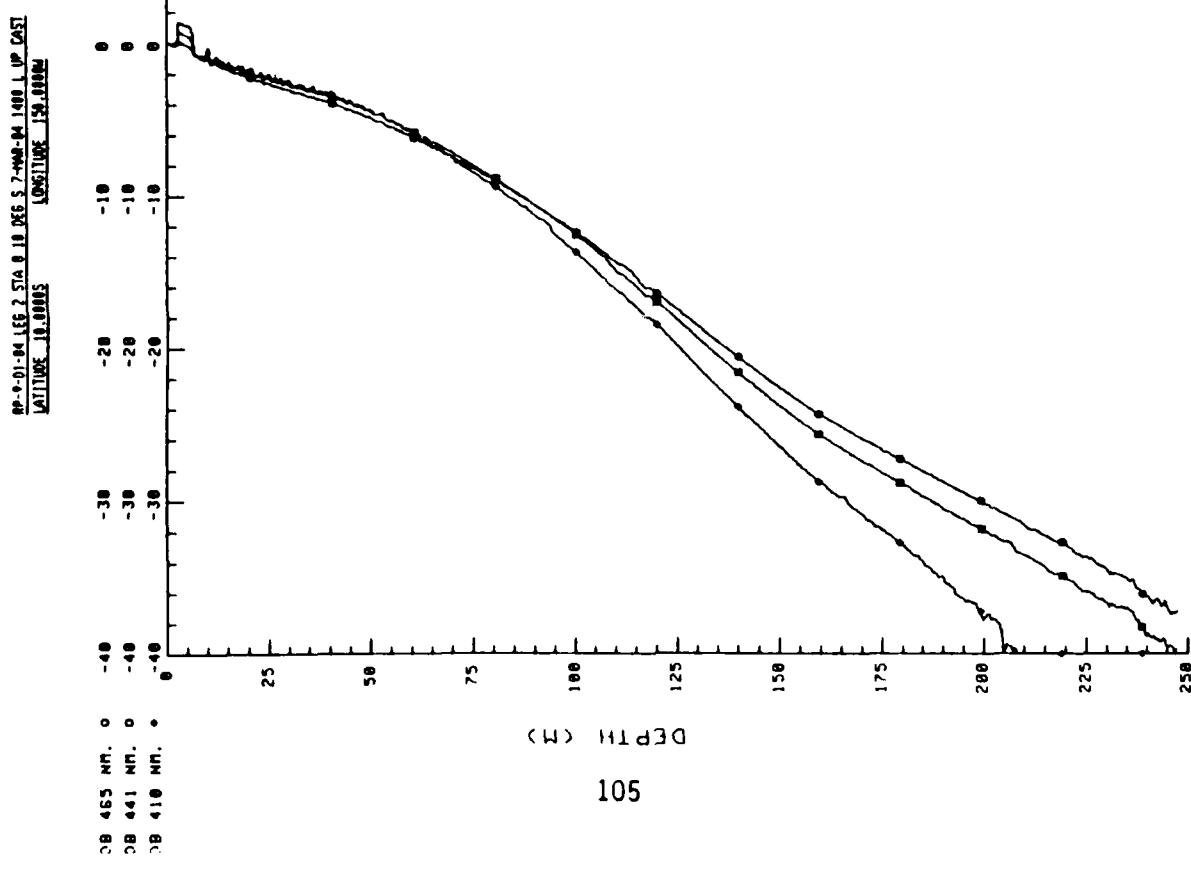


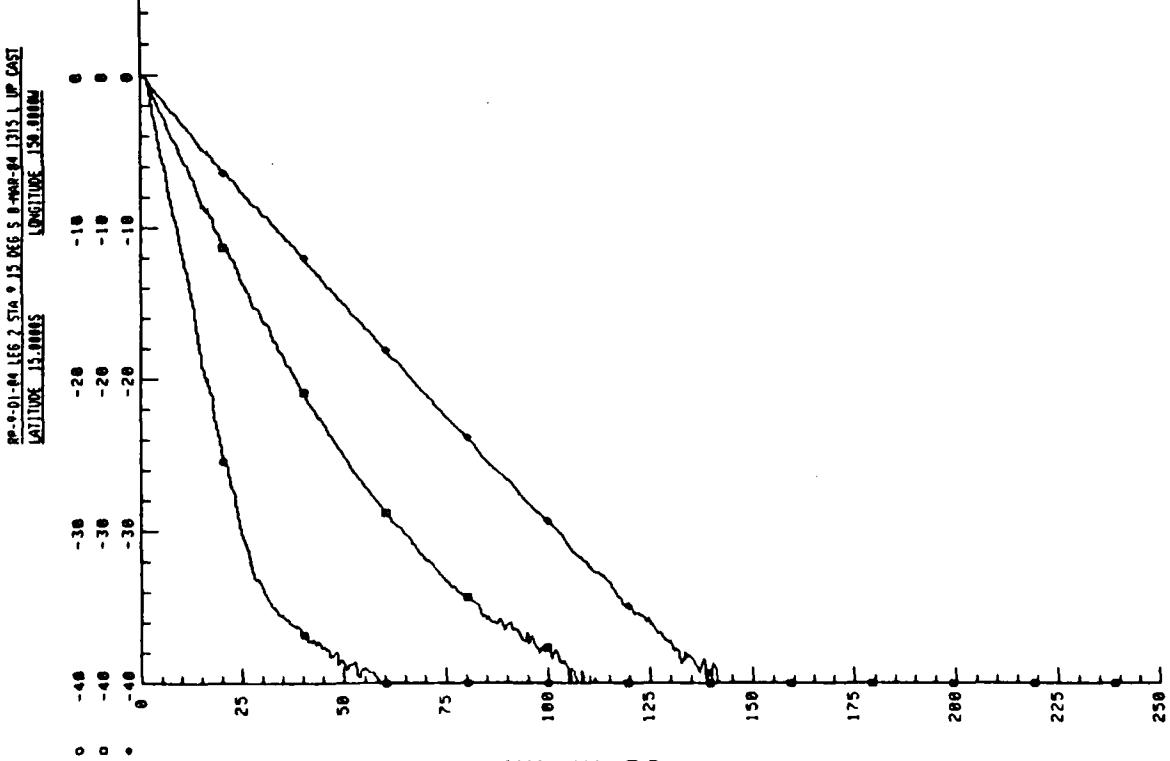
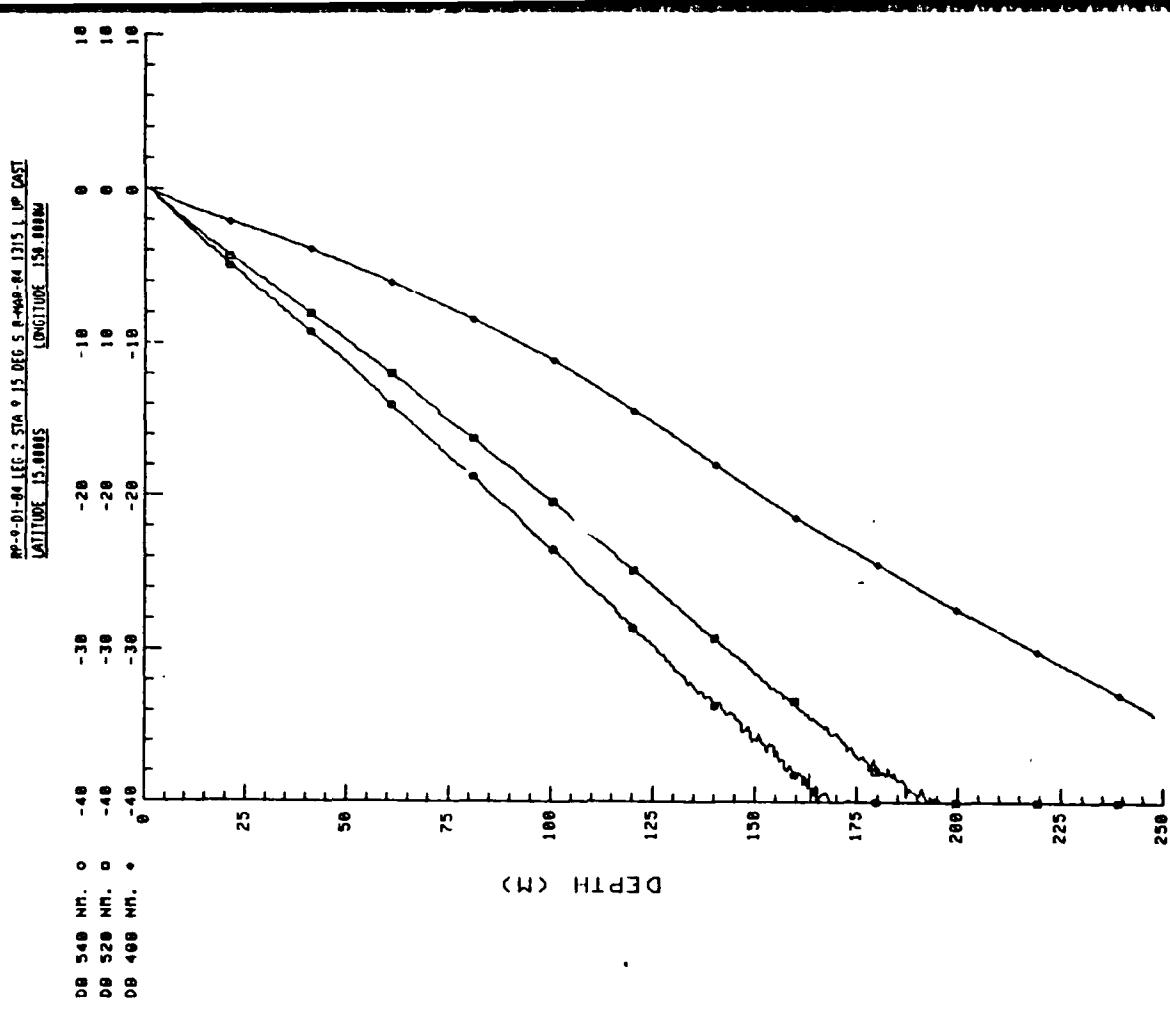


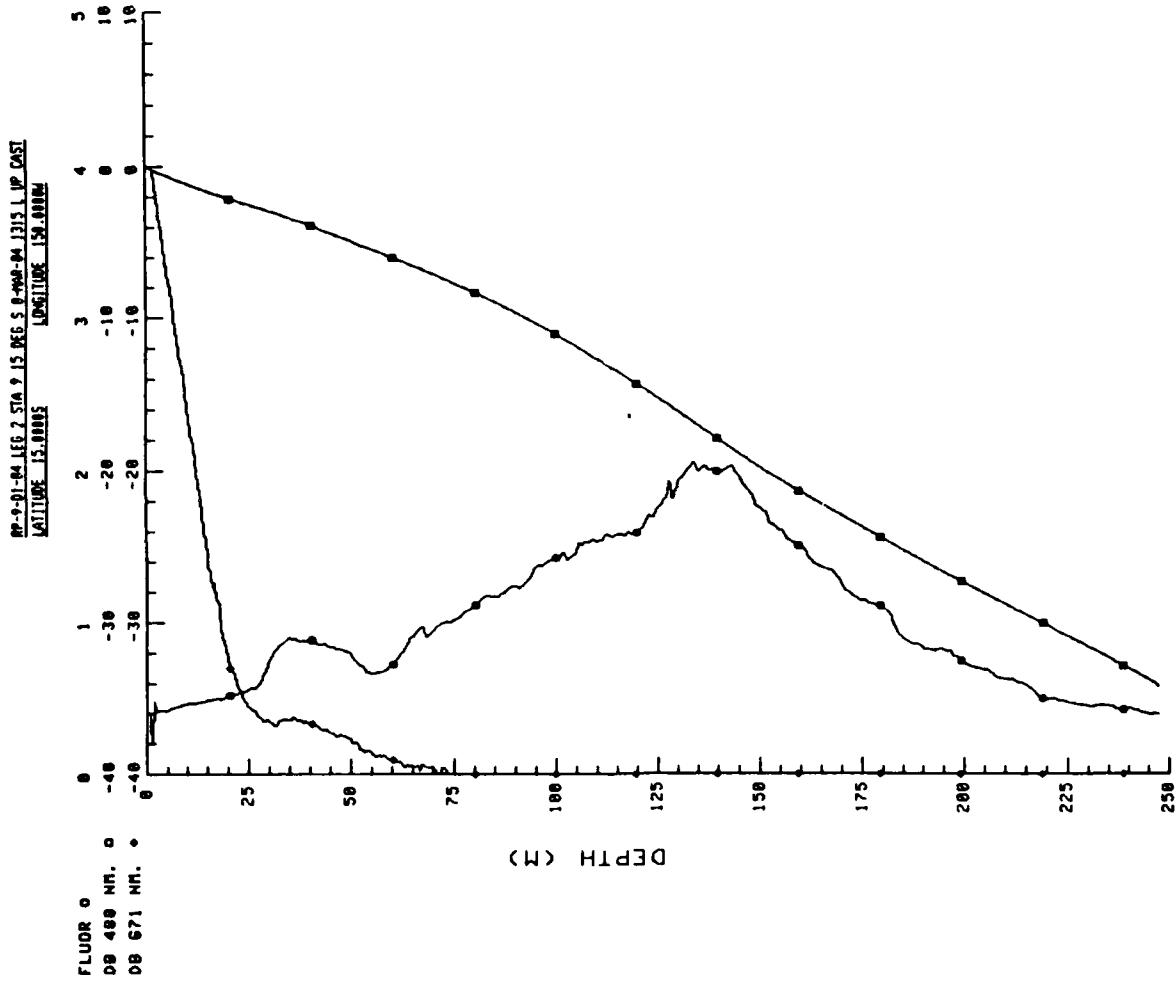




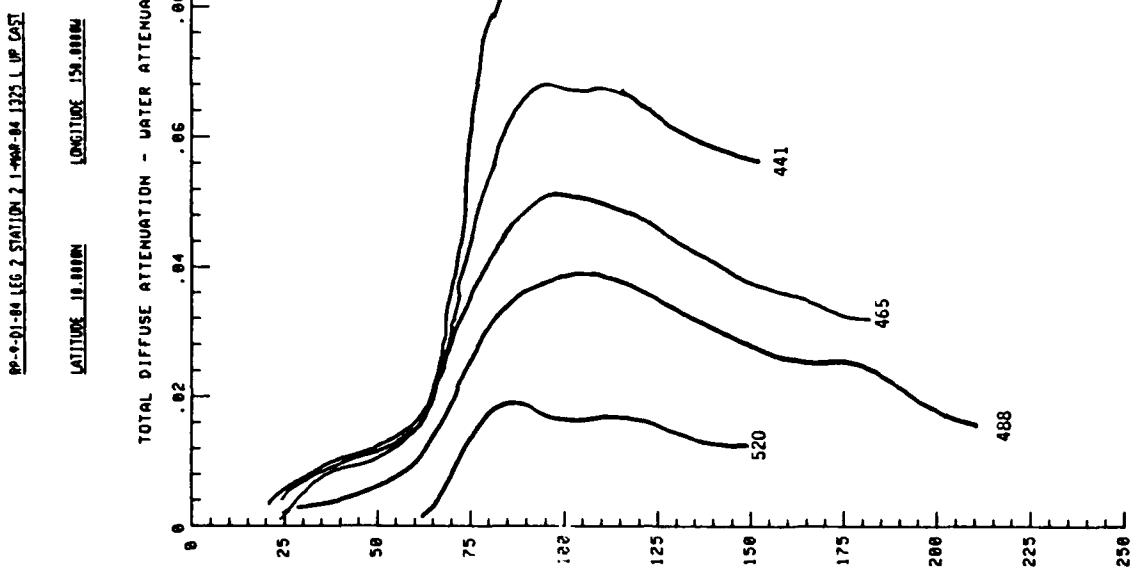
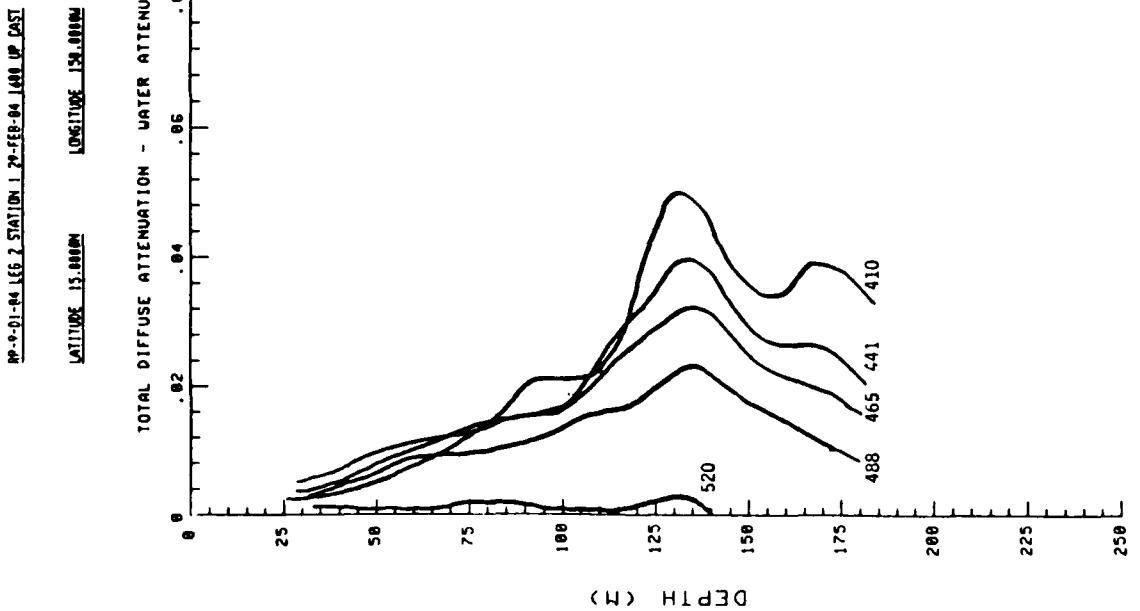






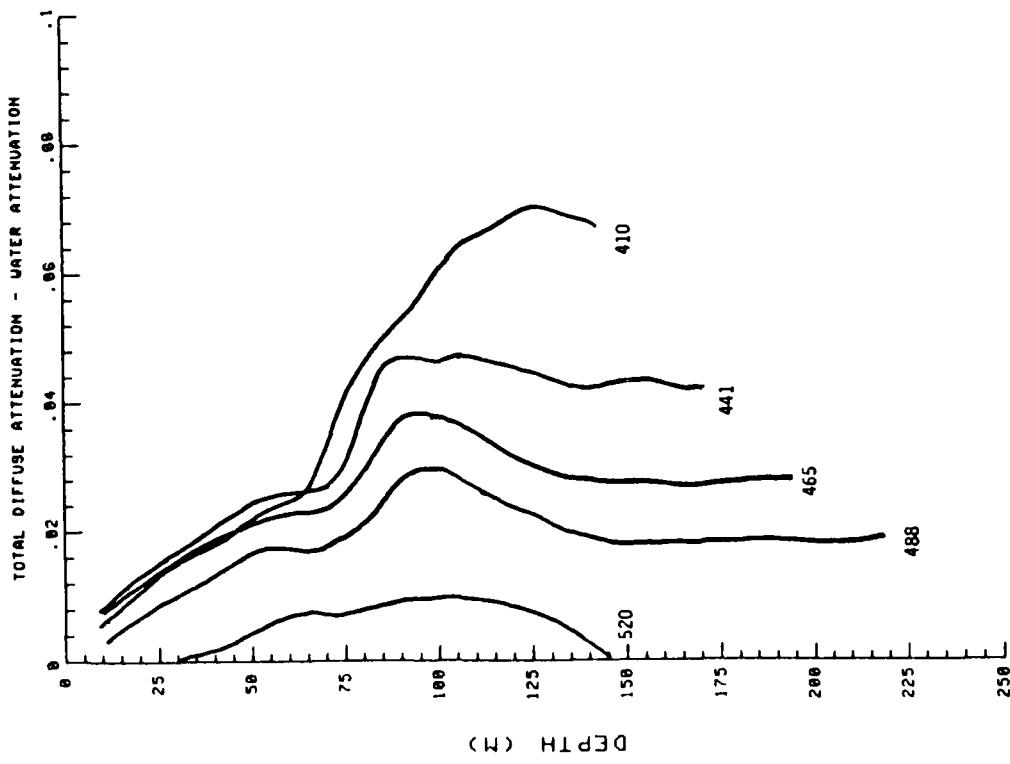


DIFFUSE ATTENUATION COEFFICIENT PLOTS [K(λ)]



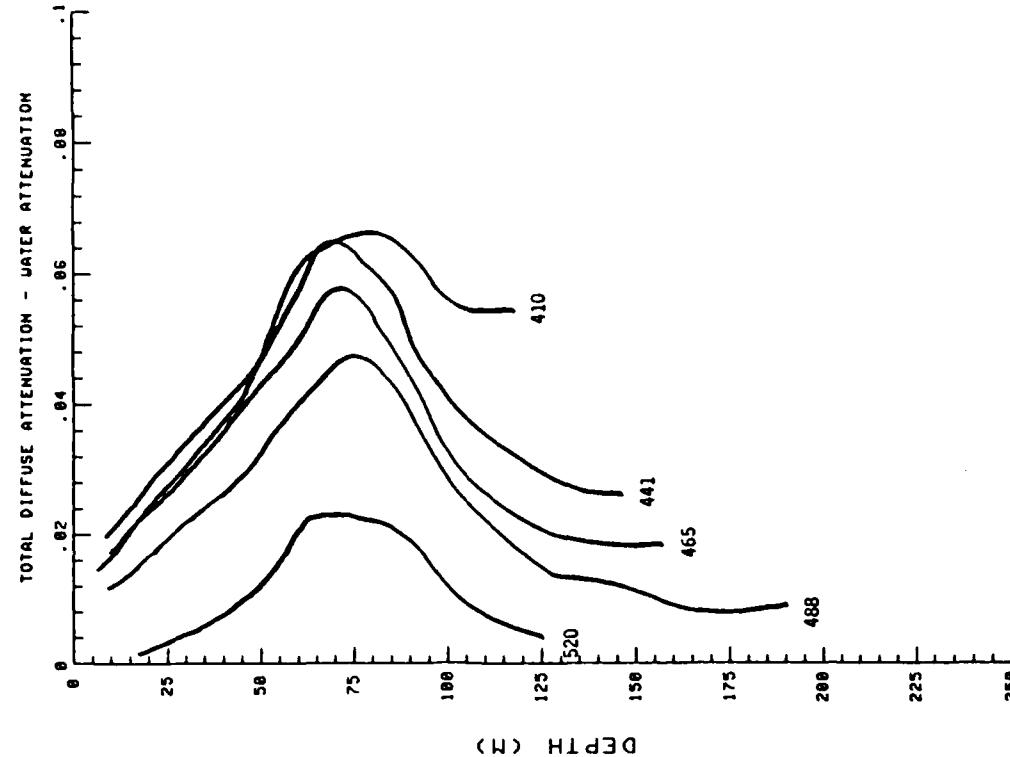
PP-9-01-84 L162 STATION 5 AT EQUATOR 4-490-84 1750L DN

LATITUDE 4.0000N LONGITUDE 156.0000W



PP-9-01-84 L162 STATION 5 AT EQUATOR 4-490-84 1750L DN

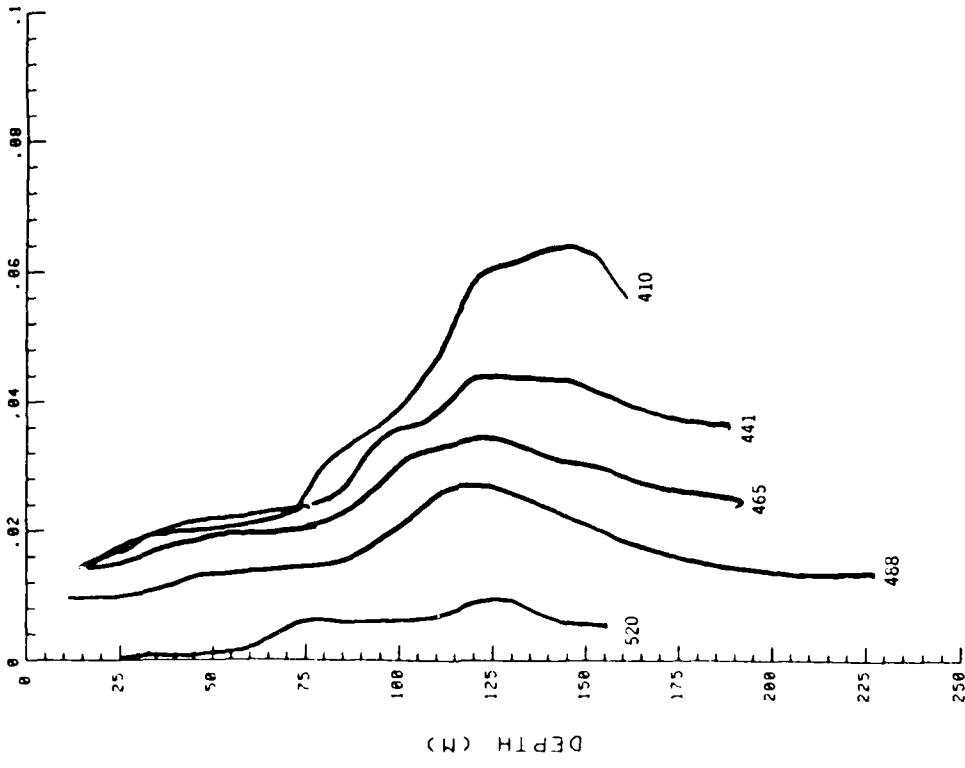
LATITUDE 8.0000S LONGITUDE 156.0000W



NP-01-84 LEG 2 STA 4 DEG 54'48" S 149°48'44" E 1200 UP EAST

LATITUDE 2.00005 LONGITUDE 159.00000

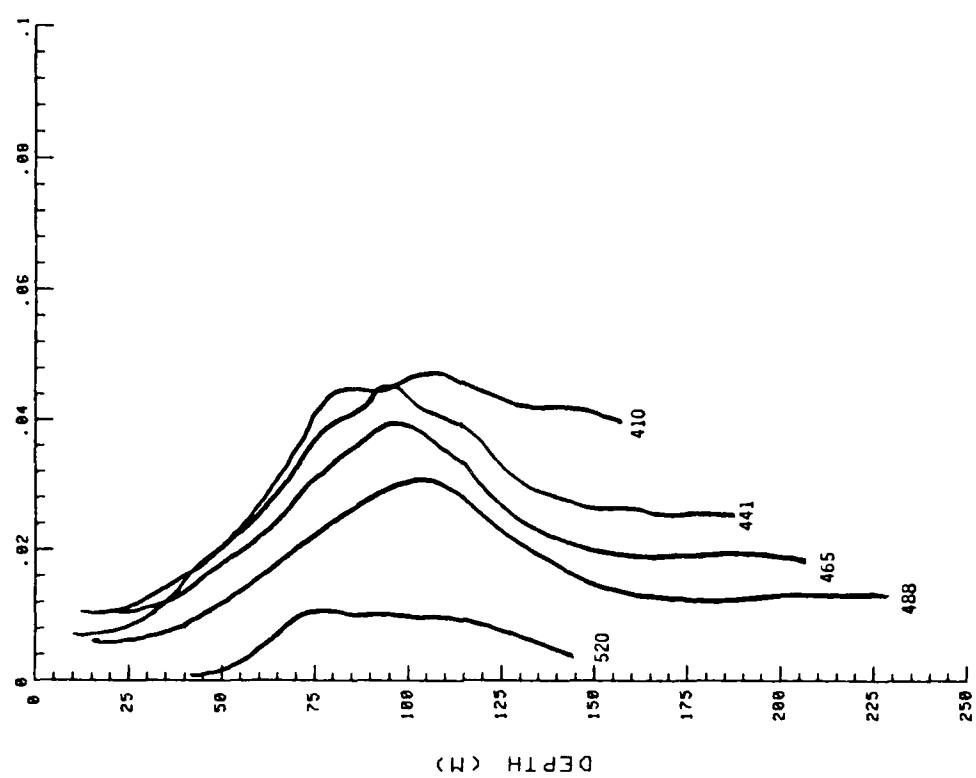
TOTAL DIFFUSE ATTENUATION - WATER ATTENUATION



NP-01-84 LEG 2 STA 7.4 DEG 54'48" S 149°48'44" E 1200 L ON EAST

LATITUDE 6.00005 LONGITUDE 159.00000

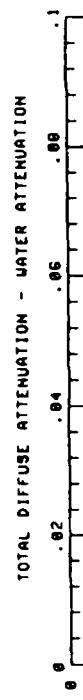
TOTAL DIFFUSE ATTENUATION - WATER ATTENUATION



NP-9-D-84 LEG 2 STA 8 10 DEG S 7440-94 1400 LWP CAST

LATITUDE 10.0000S

LONGITUDE 154.0000E

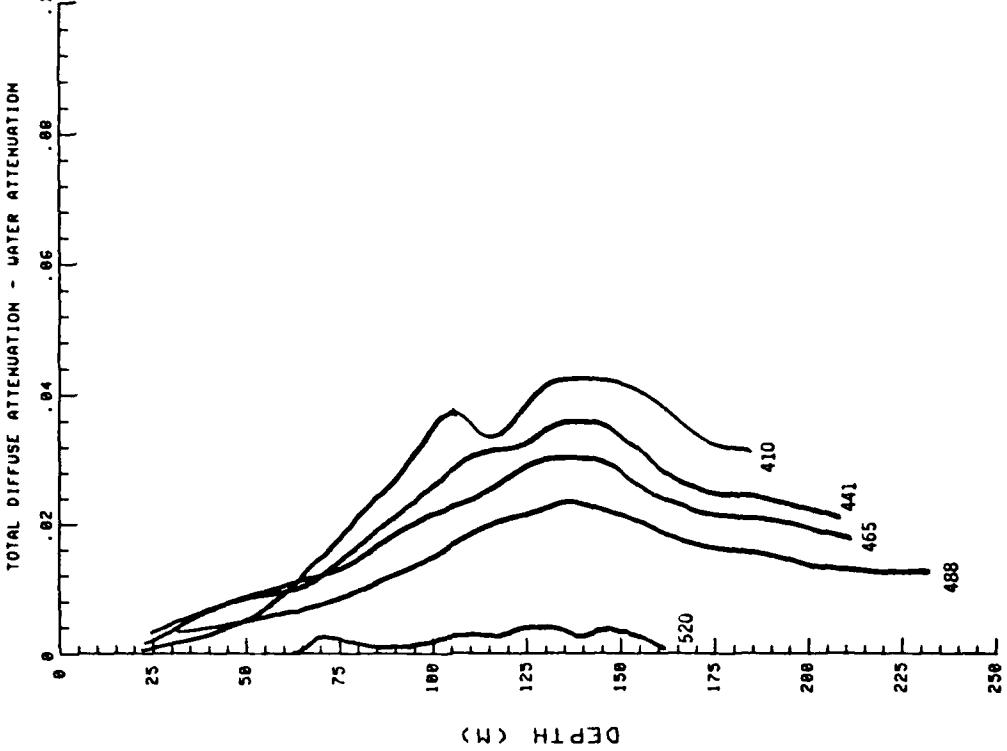


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NP-9-D-84 LEG 2 STA 9 15 DEG S 8440-94 1315 LWP CAST

LATITUDE 15.0000S

LONGITUDE 154.0000E



LISTING OF SPECTRAL AND PAR IRRADIANCE

Spectral Radiometer Data File : DISCO 1 DN CAST.MDAT

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 1 29-FEB-84 1545 DN CAST
 Lat. 35.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	528 nm	548 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR	mW/cm^2
M	deg C	ppt	&T	V.	Atten												
1.1	24.933	34.531	23.01	0.95	0.383	1.34+2	1.31+2	1.53+2	1.34+2	1.29+2	1.23+2	9.87+1	9.21+1	8.36+1	6.89+1	3.26+4	
5.9	24.882	34.536	23.03	0.16	0.371	1.29+2	1.24+2	1.43+2	1.25+2	1.03+2	9.96+1	8.63+1	4.71+1	1.64+1	7.05+0	3.12+8	2.15+4
10.9	24.928	34.558	23.03	0.17	0.371	1.18+2	1.14+2	1.29+2	1.11+2	7.93+1	7.24+1	5.65+1	2.19+1	2.65+0	5.42-1	1.63-1	1.68+4
15.9	24.982	34.552	23.04	0.17	0.371	9.61+1	8.98+1	9.69+1	8.08+1	4.84+1	4.22+1	2.97+1	8.43+0	4.28-1	6.01-2	2.44-2	1.16+4
20.8	24.785	34.522	23.05	0.18	0.372	9.98+1	9.48+1	1.84+2	8.69+1	4.61+1	3.85+1	2.46+1	4.96+0	1.18-1	2.68-2		1.17+4
25.9	24.763	34.543	23.07	0.20	0.377	8.83+1	8.27+1	8.85+1	7.25+1	3.29+1	2.68+1	1.51+1	2.21+0	4.31-2	1.85-2		9.53+3
30.9	24.869	34.787	23.16	0.20	0.369	8.70+1	8.38+1	8.88+1	7.27+1	2.97+1	2.27+1	1.22+1	1.44+0	2.84-2			9.29+3
36.0	24.863	34.728	23.18	0.20	0.378	7.54+1	7.16+1	7.52+1	6.88+1	2.15+1	1.57+1	7.28+0	7.06-1				7.65+3
48.8	24.871	34.736	23.19	0.22	0.373	6.96+1	6.59+1	6.76+1	5.35+1	1.61+1	1.07+1	4.43+0	3.61-1				6.78+3
45.9	24.888	34.746	23.19	0.22	0.373	4.95+1	4.58+1	4.41+1	3.38+1	8.92+0	5.43+0	2.14+0	1.63-1				4.37+3
58.7	24.982	34.757	23.19	0.25	0.372	5.61+1	5.48+1	5.45+1	4.26+1	1.82+1	5.92+0	2.13+0	1.51-1				5.25+3
55.7	24.921	34.773	23.28	0.24	0.372	4.97+1	4.77+1	4.77+1	3.71+1	7.81+0	4.53+0	1.55+0	1.86-1				4.56+3
68.7	24.948	34.788	23.28	0.23	0.372	4.72+1	4.62+1	4.68+1	3.57+1	6.47+0	3.63+0	1.15+0	7.87-2				4.33+3
65.6	24.942	34.889	23.22	0.24	0.378	4.28+1	4.06+1	3.99+1	3.85+1	4.94+0	2.64+0	7.87-1	5.81-2				3.75+3
78.7	24.928	34.823	23.23	0.29	0.383	3.55+1	3.47+1	3.48+1	2.61+1	3.74+0	1.92+0	5.38-1	4.36-2				3.17+3
75.6	24.833	34.989	23.33	0.35	0.381	4.23+1	4.17+1	4.08+1	3.13+1	4.87+0	1.99+0	5.37-1	5.25-2				3.78+3
88.6	24.791	34.929	23.36	0.33	0.378	3.25+1	3.16+1	3.05+1	2.32+1	2.65+0	1.23+0	3.20-1					2.83+3
85.5	24.725	34.941	23.39	0.36	0.378	3.36+1	3.39+1	3.17+1	2.36+1	2.43+0	1.89+0	2.89-1					2.94+3
98.4	24.711	34.941	23.39	0.38	0.378	1.97+1	1.98+1	1.83+1	1.31+1	1.25+0	5.35-1	1.48-1					1.68+3
95.5	24.673	34.956	23.41	0.43	0.378	1.06+1	1.07+1	9.76+0	6.65+0	6.19-1	2.65-1	7.41-2					8.92+2
108.4	24.569	34.984	23.46	0.47	0.378	1.23+1	1.35+1	1.31+1	1.01+1	8.42-1	3.39-1	6.54-2					1.18+3
105.4	24.448	35.813	23.53	0.52	0.378	1.87+1	1.28+1	1.18+1	8.77+0	6.75-1	2.57-1	6.47-2					1.04+3
118.4	24.242	35.876	23.63	0.53	0.378	8.84+0	8.81+1	9.96+0	7.39+0	5.37-1	2.83-1	5.66-2					8.72+2
115.4	24.048	35.181	23.71	0.59	0.373	7.06+0	7.77+0	7.71+0	5.93+0	3.97-1	1.47-1						6.88+2
128.4	23.861	35.081	23.75	0.65	0.375	5.64+0	6.30+0	6.34+0	4.92+0	3.24-1	1.15-1						5.55+2
125.3	22.684	34.933	23.98	0.87	0.372	4.82+0	4.75+0	4.94+0	3.92+0	2.38-1	8.04-2						4.25+2
138.3	22.234	35.027	24.18	0.98	0.371	2.95+0	3.73+0	4.83+0	3.30+0	1.93-1	6.32-2						3.48+2
135.3	22.015	35.144	24.33	1.24	0.388	2.54+0	3.34+0	3.72+0	3.13+0	1.70-1							3.89+2
148.1	21.865	35.164	24.38	1.38	0.381	1.29+0	1.73+0	1.93+0	1.63+0	8.05-2							1.68+2
145.2	21.739	35.281	24.45	1.38	0.371	1.82+0	1.45+0	1.67+0	1.45+0	7.01-2							1.37+2
158.1	21.601	35.223	24.58	1.28	0.378	8.83-1	1.18+0	1.39+0	1.21+0	5.94-2							1.13+2
155.0	21.519	35.285	24.51	1.13	0.369	6.05-1	9.27-1	1.18+0	9.65-1	4.49-2							8.85+1
168.1	21.267	35.164	24.55	1.08	0.369	4.59-1	7.25-1	8.78-1	7.76-1	3.58-2							6.98+1
165.1	20.283	35.019	24.71	0.91	0.368	3.18-1	5.35-1	6.61-1	5.95-1								5.16+1
178.0	20.028	34.954	24.73	0.92	0.364	2.41-1	4.35-1	5.47-1	5.12-1								4.26+1
175.1	18.869	34.788	24.89	0.84	0.362	1.93-1	3.78-1	4.85-1	4.66-1								3.74+1
188.0	17.814	34.750	25.13	0.72	0.368	1.51-1	3.29-1	4.46-1	4.45-1								3.41+1
185.0	17.370	34.579	25.11	0.71	0.358					2.27-1	3.15-1	3.32-1					2.28+1
189.9	15.938	34.459	25.35	0.59	0.358					1.17-1	1.62-1	2.02-1					1.26+1
195.0	14.832	34.284	25.46	0.57	0.358						7.95-2	1.28-1					5.38+0

END OF DATA

BREAK IN 1828

Spectral Radiometer Data File : DISCO 1 UP CAST.MDAT.S

Page 1

Cast Label : RP-9-01-84 LEG 2 STATION 1 29-FEB-84 1600 UP CAST
 Lat. 15.0000N Long. 158.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR	-LM/cm ² -
M	deg C	ppt	&-T	V.	Atten													
0.9	24.931	33.565	22.28	0.96	0.485	1.23+2	1.19+2	1.48+2	1.23+2	1.18+2	1.13+2	8.99+1	8.43+1	7.81+1	6.34+1	2.98+4		
5.9	24.891	34.582	23.06	0.21	0.375	1.19+2	1.12+2	1.27+2	1.18+2	8.88+1	8.42+1	7.23+1	3.87+1	1.35+1	5.69+0	2.52+0	1.87+4	
11.0	24.871	34.573	23.06	0.21	0.375	1.04+2	1.02+2	1.17+2	1.08+2	7.17+1	6.54+1	5.89+1	1.94+1	2.23+0	4.46-1	1.35-1	1.51+4	
15.8	24.872	34.574	23.06	0.22	0.376	1.08+2	1.02+2	1.11+2	9.29+1	5.52+1	4.76+1	3.32+1	9.24+0	4.22-1	6.15-2	2.88-2	1.32+4	
20.8	24.797	34.556	23.07	0.23	0.382	1.01+2	9.41+1	1.03+2	8.52+1	4.43+1	3.69+1	2.37+1	4.73+0	1.19-1	2.59-2		1.15+4	
25.9	24.809	34.657	23.14	0.22	0.385	8.93+1	8.57+1	9.38+1	7.68+1	3.59+1	2.85+1	1.67+1	2.53+0	4.58-2	1.88-2		1.08+4	
30.9	24.854	34.708	23.17	0.24	0.388	8.46+1	8.02+1	8.47+1	6.85+1	2.67+1	2.08+1	1.81+1	1.16+0	2.85-2		8.77+3		
35.8	24.864	34.722	23.18	0.24	0.378	7.61+1	7.28+1	7.58+1	6.12+1	2.13+1	1.55+1	7.08+0	6.88-1	2.53-2		7.68+3		
40.9	24.863	34.728	23.18	0.24	0.381	6.81+1	6.56+1	6.84+1	5.48+1	1.68+1	1.15+1	4.73+0	3.98-1			6.77+3		
45.8	24.868	34.733	23.19	0.25	0.379	6.17+1	5.94+1	6.12+1	4.86+1	1.29+1	7.96+0	3.89+0	2.28-1			5.94+3		
50.7	24.891	34.742	23.18	0.26	0.379	5.57+1	5.37+1	5.44+1	4.27+1	1.82+1	5.91+0	2.13+0	1.48-1			5.23+3		
55.6	24.918	34.754	23.19	0.26	0.377	5.87+1	4.84+1	4.81+1	3.73+1	7.66+0	4.48+0	1.58+0	1.83-1			4.68+3		
60.7	24.932	34.763	23.19	0.29	0.381	4.42+1	4.28+1	4.24+1	3.25+1	5.58+0	3.87+0	9.49-1	6.92-2			3.99+3		
65.6	24.935	34.784	23.20	0.33	0.382	3.98+1	3.79+1	3.71+1	2.84+1	4.43+0	2.36+0	7.82-1	5.15-2			3.48+3		
70.6	24.938	34.823	23.23	0.38	0.386	3.46+1	3.35+1	3.26+1	2.48+1	3.51+0	1.79+0	5.08-1	4.44-2			3.85+3		
75.6	24.857	34.889	23.31	0.42	0.386	2.95+1	2.98+1	2.82+1	2.16+1	2.68+0	1.38+0	3.48-1	3.48-2			2.62+3		
80.6	24.889	34.925	23.35	0.48	0.384	2.57+1	2.52+1	2.44+1	1.87+1	2.15+0	1.01+0	2.64-1				2.26+3		
85.6	24.751	34.942	23.38	0.42	0.386	2.19+1	2.18+1	2.11+1	1.61+1	1.64+0	7.28-1	1.88-1				1.94+3		
90.5	24.716	34.941	23.39	0.44	0.382	1.86+1	1.86+1	1.88+1	1.38+1	1.29+0	5.65-1	1.43-1				1.65+3		
95.5	24.678	34.948	23.48	0.48	0.382	1.48+1	1.68+1	1.55+1	1.18+1	1.08+0	4.18-1	1.05-1				1.39+3		
100.4	24.538	34.985	23.48	0.57	0.382	1.26+1	1.39+1	1.35+1	1.08+1	8.85-1	3.39-1	7.77-2				1.28+3		
105.4	24.321	35.048	23.59	0.56	0.383	1.03+1	1.16+1	1.13+1	8.39+0	6.25-1	2.42-1	6.13-2				9.99+2		
110.4	24.208	35.071	23.64	0.63	0.382	8.69+0	9.43+0	9.22+0	7.83+0	4.94-1	1.83-1	4.87-2				8.22+2		
115.4	23.999	35.098	23.72	0.68	0.378	6.93+0	7.64+0	7.59+0	5.89+0	3.89-1	1.48-1				6.71+2			
120.4	23.785	35.084	23.80	0.89	0.382	5.48+0	6.19+0	6.25+0	4.91+0	3.04-1	1.01-1				5.47+2			
125.3	22.433	34.870	24.88	1.05	0.375	4.07+0	4.86+0	5.04+0	4.05+0	2.43-1	8.59-2				4.35+2			
130.2	22.151	35.098	24.25	1.14	0.375	2.87+0	3.67+0	3.97+0	3.30+0	1.08-1	5.72-2				3.35+2			
135.2	21.937	35.157	24.36	1.77	0.385	2.08+0	2.88+0	3.12+0	2.67+0	1.48-1	5.85-2				2.61+2			
140.1	21.833	35.168	24.48	1.47	0.383	1.54+0	2.15+0	2.47+0	2.16+0	1.18-1					2.04+2			
145.1	21.787	35.191	24.45	1.09	0.375	1.18+0	1.72+0	2.01+0	1.79+0	9.41-2					1.64+2			
150.1	21.598	35.201	24.49	1.09	0.374	9.13-1	1.39+0	1.64+0	1.49+0	7.35-2					1.34+2			
154.9	21.589	35.189	24.58	0.91	0.373	7.24-1	1.14+0	1.37+0	1.26+0	6.06-2					1.11+2			
160.2	21.191	35.181	24.52	0.88	0.373	5.66-1	9.47-1	1.16+0	1.08+0	5.17-2					9.38+1			
165.1	20.168	34.973	24.78	0.88	0.373	4.23-1	7.52-1	9.42-1	9.18-1	3.59-2					7.53+1			
170.8	19.449	34.856	24.88	0.71	0.371	3.28-1	6.23-1	7.96-1	7.83-1	3.66-2					6.34+1			
174.9	18.563	34.745	24.94	0.58	0.369	2.54-1	5.15-1	6.81-1	6.05-1						5.38+1			
180.8	17.538	34.654	25.12	0.46	0.367	2.08-1	4.39-1	5.91-1	6.16-1						4.60+1			
185.0	16.743	34.541	25.23	0.58	0.366	1.61-1	3.71-1	5.10-1	5.46-1						3.97+1			
189.8	15.277	34.383	25.44	0.47	0.364	1.27-1	3.27-1	4.56-1	5.03-1						3.55+1			
194.9	14.310	34.339	25.61	0.48	0.364	1.17-1	3.08-1	4.28-1	4.78-1						3.32+1			

?OVERFLOW ERROR IN 4030

Spectral Radiometer Data File : DISCO 2 DN CAST.MDAT

page 1

Cast Label : RP-9-01-84 LEG 2 STATION 2 1-MAR-84 1325 L DN CAST
 Lat. 10.0000N Long. 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. a-T	Fluor V.	Beam Atten	410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Irradiance wL/cm ² /nm	-wL/cm ² -
2.7	25.873	34.263	22.52	0.29	0.383	6.03+1	4.76+1	4.78+1	3.69+1	2.54+1	2.30+1	1.92+1	1.21+1	7.83+0	5.18+0	3.27+0	6.91+3	
7.5	25.881	34.264	22.52	0.29	0.394	6.39+1	5.16+1	5.33+1	4.21+1	2.76+1	2.40+1	1.97+1	9.68+0	2.72+0	1.02+0	4.59-1	6.98+3	
12.6	25.887	34.262	22.52	0.28	0.381	6.69+1	5.45+1	5.67+1	4.58+1	2.65+1	2.29+1	1.67+1	5.98+0	7.14-1	1.55-1	4.96-2	6.89+3	
17.4	25.866	34.257	22.52	0.28	0.382	7.45+1	6.22+1	6.62+1	5.37+1	3.81+1	2.57+1	1.79+1	5.83+0	3.11-1	5.61-2	2.03-2	7.81+3	
22.4	25.821	34.264	22.54	0.32	0.384	6.88+1	5.66+1	5.96+1	4.78+1	2.32+1	1.89+1	1.19+1	2.42+0	8.23-2	2.74-2		6.68+3	
27.3	25.792	34.263	22.55	0.35	0.387	7.25+1	6.15+1	6.55+1	5.30+1	2.43+1	1.95+1	1.16+1	1.96+0	5.19-2	2.78-2		7.18+3	
32.3	25.789	34.265	22.55	0.38	0.384	6.77+1	5.88+1	6.21+1	5.05+1	2.08+1	1.59+1	8.31+0	1.11+0	3.31-2	2.47-2		6.59+3	
37.4	25.784	34.265	22.55	0.41	0.384	6.08+1	5.15+1	5.49+1	4.45+1	1.65+1	1.21+1	5.75+0	6.62-1	2.67-2	2.25-2		5.69+3	
42.2	25.783	34.268	22.55	0.46	0.384	6.86+1	5.17+1	5.49+1	4.43+1	1.45+1	9.62+0	4.32+0	4.20-1		2.43-2		5.56+3	
47.3	25.782	34.266	22.55	0.49	0.385	6.62+1	5.53+1	5.79+1	4.64+1	1.28+1	8.46+0	3.68+0	3.20-1				5.78+3	
52.3	25.784	34.265	22.55	0.53	0.385	6.05+1	5.01+1	5.28+1	4.16+1	1.01+1	6.41+0	2.54+0	2.14-1				5.14+3	
57.2	25.781	34.268	22.55	0.59	0.383	5.48+1	4.49+1	4.67+1	3.74+1	8.44+0	5.19+0	1.97+0	1.64-1				4.58+3	
62.2	25.781	34.270	22.56	0.69	0.382	5.29+1	4.53+1	4.79+1	3.88+1	8.31+0	5.81+0	1.81+0	1.41-1				4.62+3	
67.1	25.758	34.277	22.57	0.73	0.379	3.42+1	3.16+1	3.51+1	2.94+1	6.25+0	3.72+0	1.26+0	8.77-2		1.88-2		3.31+3	
72.1	22.452	34.468	23.68	1.15	0.392	2.73+1	2.69+1	3.08+1	2.62+1	5.11+0	2.97+0	9.51-1	6.65-2		2.46-2		2.82+3	
77.0	28.464	34.514	24.27	1.77	0.415	2.34+1	2.51+1	3.01+1	2.67+1	5.14+0	3.08+0	9.54-1	7.30-2		3.46-2		2.71+3	
82.1	19.083	34.419	24.58	2.23	0.399	1.14+1	1.48+1	1.98+1	1.74+1	3.17+0	1.88+0	5.47-1	4.26-2		2.78-2		1.64+3	
87.0	16.437	34.497	25.26	2.81	0.385	7.31+0	1.09+1	1.49+1	1.41+1	2.43+0	1.34+0	3.90-1	3.34-2		2.01-2		1.25+3	
92.0	15.498	34.395	25.40	2.81	0.386	4.49+0	7.22+0	1.13+1	1.11+1	1.79+0	9.48-1	2.72-1	2.57-2				9.18+2	
97.1	13.974	34.518	25.82	2.13	0.388	2.73+0	5.05+0	8.16+0	8.63+0	1.39+0	7.19-1	1.98-1					6.65+2	
101.9	13.517	34.574	25.96	1.78	0.373	1.54+0	3.25+0	5.67+0	6.82+0	9.53-1	4.76-1	1.34-1					4.58+2	
106.9	13.421	34.585	25.99	1.54	0.371	9.17-1	2.25+0	4.28+0	4.73+0	7.33-1	3.56-1	1.00-1					3.35+2	
111.9	13.238	34.591	26.83	1.33	0.369	5.51-1	1.55+0	3.17+0	3.62+0	5.40-1	2.41-1	7.28-2					2.46+2	
116.8	12.927	34.597	26.18	1.13	0.369	3.41-1	1.09+0	2.42+0	2.87+0	4.85-1	1.83-1	5.28-2					1.87+2	
121.8	12.658	34.629	26.18	1.85	0.369	1.84-1	7.16-1	1.74+0	2.13+0	2.92-1	1.28-1						1.32+2	
126.7	12.437	34.656	26.24	0.85	0.368	1.13-1	5.12-1	1.35+0	1.72+0	2.28-1	9.16-2						1.82+2	
131.8	12.212	34.673	26.30	0.83	0.367				3.36-1	9.61-1	1.28+0	1.58-1	6.82-2				7.23+1	
136.7	12.117	34.676	26.32	0.68	0.364				2.24-1	6.91-1	9.61-1	1.14-1					5.18+1	
141.6	11.981	34.666	26.35	0.66	0.364				1.61-1	5.49-1	7.84-1	8.85-2					4.12+1	
146.7	11.765	34.691	26.48	0.66	0.364				1.07-1	4.10-1	6.06-1	6.53-2					3.09+1	
151.6	11.650	34.696	26.42	0.63	0.365				8.14-2	3.30-1	5.87-1	5.06-2					2.53+1	
156.6	11.558	34.716	26.46	0.58	0.364				5.98-2	2.63-1	4.18-1	3.86-2					2.03+1	
161.6	11.511	34.712	26.46	0.52	0.365				3.87-2	1.96-1	3.24-1						1.46+1	
166.6	11.392	34.717	26.49	0.47	0.365					1.51-1	2.66-1						1.09+1	
171.5	11.274	34.714	26.51	0.42	0.366					1.82-1	1.84-1						7.47+0	
176.6	11.184	34.717	26.53	0.39	0.366					1.04-1	1.91-1						7.69+0	
181.5	11.087	34.784	26.53	0.39	0.366					8.48-2	1.72-1						6.71+0	
186.4	10.978	34.785	26.55	0.39	0.366					6.42-2	1.24-1						4.93+0	
191.4	10.928	34.783	26.56	0.39	0.369					4.86-2	1.81-1						3.92+0	
196.4	10.822	34.781	26.58	0.38	0.368						7.75-2						2.13+0	
201.4	10.788	34.783	26.59	0.39	0.369						6.69-2						1.84+0	
206.4	10.692	34.693	26.59	0.38	0.369						5.76-2						1.58+0	
211.2	10.635	34.696	26.61	0.39	0.369						4.68-2						1.26+0	
216.4	10.588	34.692	26.61	0.39	0.369						3.83-2						1.05+0	
221.3	10.538	34.691	26.62	0.41	0.369													
226.2	10.472	34.687	26.63	0.41	0.369													
231.3	10.406	34.693	26.65	0.42	0.369													
236.2	10.367	34.694	26.65	0.42	0.369													
241.2	10.329	34.693	26.66	0.42	0.369													

Spectral Radiometer Data File : DISCO 2 UP CAST.MDAT.S

page 1

Cast Label : RP-9-DI-84 LEG 2 STATION 2 1-MAR-84 1325 L UP CAST

Lat. 10.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR
M	deg C	ppt	b-1	V.	Atten												
1.0	25.898	30.930	20.00	0.46	0.735	6.19+1	4.78+1	4.75+1	3.62+1	2.55+1	2.38+1	1.94+1	1.32+1	1.07+1	8.28+0	6.41+0	7.21+3
5.9	25.893	34.265	22.52	0.29	0.386	5.52+1	4.28+1	4.26+1	3.26+1	2.04+1	1.79+1	1.39+1	6.98+0	2.26+0	9.38+1	4.59+1	5.52+3
11.0	25.902	34.263	22.51	0.28	0.388	3.14+1	2.94+1	3.42+1	2.97+1	2.32+1	2.18+1	1.79+1	8.03+0	1.45+0	3.57+1	1.24+1	4.73+3
15.9	25.859	34.266	22.53	0.32	0.386	2.95+1	2.76+1	3.15+1	2.72+1	1.91+1	1.73+1	1.32+1	4.64+0	3.92+1	6.35+2	1.93+2	4.04+3
20.8	25.818	34.263	22.54	0.39	0.388	2.68+1	2.54+1	2.90+1	2.49+1	1.53+1	1.33+1	9.11+0	2.33+0	7.08+2	1.21+2	6.30+3	3.45+3
25.8	25.808	34.264	22.54	0.41	0.388	2.31+1	2.21+1	2.57+1	2.25+1	1.2941	1.11+1	7.24+0	1.53+0	2.96+2	7.82+3	4.93+3	2.97+3
30.9	25.806	34.264	22.54	0.46	0.389	2.31+1	2.11+1	2.38+1	2.02+1	9.66+0	7.82+0	4.54+0	6.67+1	9.88+3	7.27+3	4.79+3	2.68+3
35.8	25.807	34.263	22.54	0.49	0.389	2.04+1	1.89+1	2.13+1	1.81+1	8.00+0	6.28+0	3.42+0	4.24+1	6.76+3	6.41+3		2.26+3
40.8	25.804	34.262	22.54	0.58	0.387	1.08+1	1.72+1	1.92+1	1.62+1	6.24+0	4.71+0	2.31+0	2.31+1		5.79+3		1.98+3
45.8	25.799	34.263	22.54	0.55	0.388	1.56+1	1.47+1	1.67+1	1.43+1	5.13+0	3.81+0	1.76+0	1.48+1		4.82+3		1.69+3
50.8	25.796	34.258	22.54	0.59	0.388	1.34+1	1.29+1	1.48+1	1.26+1	4.19+0	3.00+0	1.23+0	9.57+2		4.48+3		1.46+3
55.7	25.793	34.251	22.54	0.63	0.386	1.23+1	1.16+1	1.31+1	1.11+1	3.30+0	2.22+0	8.69+1	6.11+2		4.28+3		1.27+3
60.7	25.795	34.242	22.53	0.64	0.381	1.08+1	1.02+1	1.14+1	9.68+0	2.56+0	1.59+0	5.76+1	3.86+2				1.18+3
65.6	25.772	34.237	22.53	0.63	0.367	8.95+0	8.64+0	9.78+0	8.32+0	2.02+0	1.28+0	4.85+1	2.55+2				9.22+2
70.6	22.181	34.408	23.72	1.52	0.482	6.73+0	6.98+0	8.81+0	6.92+0	1.61+0	9.34+1	3.82+1	1.85+2		4.14+3		7.41+2
75.6	20.395	34.417	24.22	1.93	0.448	4.76+0	5.22+0	6.29+0	5.56+0	1.14+0	6.83+1	2.13+1	1.32+2		4.84+3		5.67+2
80.6	18.536	34.405	24.69	2.05	0.404	2.98+0	3.72+0	4.73+0	4.32+0	8.36+1	4.91+1	1.42+1	9.16+3		5.21+3		4.13+2
85.6	16.512	34.389	25.16	1.68	0.392	1.75+0	2.58+0	3.49+0	3.31+0	6.07+1	3.48+1	9.71+2	6.36+3				2.96+2
90.4	15.461	34.378	25.39	1.79	0.393	1.06+0	1.75+0	2.58+0	2.51+0	4.17+1	2.29+1	5.82+2	5.23+3				2.11+2
95.5	14.004	34.494	25.88	1.78	0.389	6.29+1	1.13+0	1.89+0	1.98+0	3.10+1	1.68+1	4.17+2					1.58+2
100.4	13.597	34.552	25.93	1.58	0.388	3.57+1	7.46+1	1.29+0	1.42+0	2.24+1	1.19+1	2.66+2					1.04+2
105.3	13.442	34.569	25.97	1.30	0.375	2.19+1	5.21+1	9.69+1	1.06+0	1.69+1	8.81+2	1.76+2					7.63+1
110.4	13.268	34.581	26.02	1.15	0.375	1.26+1	3.45+1	6.98+1	7.94+1	1.21+1	6.05+2	1.23+2					5.44+1
115.4	12.849	34.689	26.12	1.03	0.373	7.24+2	2.30+1	5.06+1	5.97+1	8.71+2	4.20+2	8.00+3					3.91+1
120.4	12.629	34.622	26.18	0.95	0.372	4.23+2	1.55+1	3.72+1	4.53+1	6.35+2	3.11+2						2.84+1
125.4	12.358	34.656	26.26	0.79	0.371	2.44+2	1.05+1	2.74+1	3.46+1	4.74+2	2.38+2						2.09+1
130.2	12.159	34.671	26.31	0.75	0.369	1.46+2	7.26+2	2.05+1	2.67+1	3.38+2	1.65+2						1.56+1
135.2	11.969	34.670	26.34	0.66	0.364		5.09+2	1.55+1	2.08+1	2.52+2	1.19+2						1.16+1
140.1	11.816	34.688	26.38	0.68	0.363		3.48+2	1.17+1	1.63+1	1.98+2							8.69+0
145.1	11.634	34.698	26.42	0.58	0.364		2.47+2	8.94+2	1.28+1	1.35+2							6.66+0
150.2	11.525	34.707	26.45	0.48	0.362		1.76+2	6.93+2	1.82+1	9.72+3							5.17+0
155.1	11.522	34.715	26.46	0.39	0.362		1.22+2	5.36+2	8.11+2	7.34+3							4.01+0
160.1	11.366	34.718	26.49	0.33	0.362		0.4E+3	4.09+2	6.40+2								2.98+0
165.1	11.272	34.718	26.50	0.33	0.362				3.15+2	5.18+2							2.16+0
170.0	11.169	34.714	26.53	0.29	0.363				2.48+2	4.15+2							1.72+0
174.8	11.067	34.706	26.54	0.34	0.362				2.05+2	3.32+2							1.40+0
180.0	10.958	34.705	26.56	0.37	0.362				1.60+2	2.67+2							1.11+0
184.9	10.876	34.708	26.57	0.38	0.362				1.29+2	2.15+2							8.95+1
189.8	10.823	34.702	26.58	0.39	0.363				1.01+2	1.75+2							7.16+1
194.9	10.735	34.697	26.59	0.39	0.364				7.63+3	1.44+2							5.76+1
199.9	10.666	34.696	26.60	0.38	0.364					1.20+2							3.31+1
204.9	10.632	34.691	26.68	0.38	0.364												
210.0	10.597	34.693	26.61	0.37	0.364												
214.8	10.550	34.698	26.62	0.37	0.364												
219.8	10.465	34.690	26.63	0.38	0.366												
224.7	10.407	34.691	26.64	0.39	0.367												
229.6	10.387	34.689	26.65	0.32	0.369												
234.7	10.333	34.694	26.66	0.42	0.369												
239.7	10.317	34.694	26.66	0.43	0.369												

Spectral Radiometer Data File : DISCO 3 DN CAST.MDAT

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 3 2-MAR-84 1558 L DN CAST
 Lat. 6.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Bean		Irradiance $\text{W}/\text{cm}^2/\text{nM}$		- W/cm^2 -								
M	deg C	ppt	&T	V.	Atten	418 nM	441 nM	465 nM	488 nM	528 nM	540 nM	560 nM	589 nM	625 nM	671 nM	694 nM	Σ IRR
1.0	26.855	34.104	22.09	1.05	0.421	7.05+1	6.65+1	7.67+1	6.62+1	6.27+1	6.21+1	5.85+1	4.48+1	4.17+1	3.69+1	2.98+1	1.56+4
6.0	26.885	34.592	22.48	1.19	0.417	4.94+1	4.53+1	5.17+1	4.44+1	3.72+1	3.54+1	3.03+1	1.62+1	5.95+0	2.45+0	1.14+0	7.74+3
11.0	26.888	34.596	22.48	1.19	0.417	3.73+1	3.33+1	3.88+1	3.28+1	2.36+1	2.16+1	1.65+1	5.94+0	7.42+1	1.82+1	5.72+2	4.97+3
15.9	26.789	34.596	22.49	1.20	0.417	3.48+1	3.02+1	3.43+1	2.95+1	1.92+1	1.70+1	1.28+1	3.17+0	1.87+1	5.00+2		4.22+3
20.7	26.813	34.594	22.48	1.26	0.417	3.06+1	2.72+1	3.18+1	2.68+1	1.55+1	1.32+1	8.13+0	1.68+0	4.68+2	2.89+2		3.61+3
25.9	26.798	34.598	22.49	1.25	0.423	2.55+1	2.24+1	2.53+1	2.28+1	1.12+1	8.96+0	4.93+0	7.41+1		2.24+2		2.83+3
30.8	26.743	34.594	22.58	1.47	0.423	2.15+1	1.89+1	2.15+1	1.87+1	8.35+0	6.26+0	3.27+0	3.90+1		2.12+2		2.31+3
35.8	26.734	34.596	22.58	1.56	0.419	1.78+1	1.57+1	1.79+1	1.57+1	6.89+0	4.49+0	2.18+0	2.14+1		1.87+2		1.87+3
40.8	26.733	34.593	22.58	1.59	0.418	1.42+1	1.34+1	1.53+1	1.35+1	4.76+0	3.41+0	1.54+0	1.34+1		1.77+2		1.55+3
45.8	26.728	34.594	22.58	1.70	0.415	1.18+1	1.11+1	1.28+1	1.13+1	3.57+0	2.45+0	1.82+0	7.93+2				1.27+3
50.9	26.728	34.593	22.58	1.75	0.413	9.54+0	8.55+0	1.05+1	9.07+0	2.68+0	1.77+0	6.95+1	5.42+2				1.00+3
55.7	26.727	34.593	22.58	1.87	0.406	7.88+0	6.98+0	8.11+0	7.26+0	2.83+0	1.30+0	4.98+1	3.92+2				7.95+2
60.7	26.726	34.595	22.51	1.87	0.411	6.29+0	5.66+0	6.63+0	5.99+0	1.54+0	9.52+1	3.41+1	2.98+2				6.42+2
65.6	26.725	34.593	22.58	1.87	0.405	5.18+0	4.69+0	5.55+0	5.05+0	1.20+0	7.16+1	2.58+1					5.30+2
70.6	26.725	34.595	22.51	1.94	0.402	4.02+0	3.68+0	4.42+0	4.09+0	8.80+1	4.99+1	1.65+1					4.17+2
75.6	26.724	34.600	22.51	1.85	0.399	2.88+0	2.68+0	3.17+0	2.96+0	5.97+1	3.32+1	1.89+1					2.96+2
80.4	25.977	34.772	22.87	2.28	0.398	2.10+0	2.09+0	2.67+0	2.60+0	5.81+1	2.70+1	8.22+2					2.45+2
85.5	24.909	34.756	23.19	2.41	0.397	1.35+0	1.44+0	1.95+0	1.98+0	3.61+1	1.88+1	5.68+2					1.76+2
90.5	24.234	34.729	23.37	2.38	0.391	9.56+1	1.09+0	1.52+0	1.58+0	2.74+1	1.37+1	4.20+2					1.35+2
95.5	23.225	34.693	23.64	2.04	0.384	7.78+1	9.33+1	1.35+0	1.42+0	2.33+1	1.88+1	3.68+2					1.17+2
100.4	21.684	34.632	24.03	1.89	0.378	5.87+1	6.77+1	1.83+0	1.11+0	1.71+1	7.15+2						8.72+1
105.4	19.964	34.885	24.63	1.53	0.371	3.43+1	5.21+1	8.42+1	9.35+1	1.36+1	4.53+2						6.96+1
110.4	18.368	34.668	24.93	1.24	0.368	1.93+1	3.39+1	5.72+1	6.48+1	8.82+2							4.57+1
115.4	16.838	34.563	25.22	1.85	0.364	7.95+2	1.63+1	2.93+1	3.38+1	4.71+2							2.31+1
120.4	15.541	34.630	25.57	8.84	0.363	7.41+2	1.83+1	3.61+1	4.38+1	5.72+2							2.80+1
125.4	14.759	34.563	25.69	8.71	0.362		1.23+1	2.60+1	3.17+1	4.06+2							1.93+1
130.3	14.092	34.583	25.85	8.58	0.358		8.37+2	2.81+1	2.58+1	3.17+2							1.47+1
135.2	13.671	34.610	25.96	8.52	0.356		6.88+2	1.75+1	2.32+1								1.24+1
140.1	13.283	34.549	25.99	8.45	0.354		4.18+2	1.23+1	1.66+1								8.60+0
145.2	12.793	34.578	26.11	8.38	0.351		7.43+2	5.21+1	9.35+1	1.36+1	4.53+2						4.64+0
150.0	12.491	34.607	26.19	8.34	0.352		4.24+2	5.99+2									2.64+0
155.1	12.244	34.526	26.18	8.36	0.355		4.69+2	6.98+2									3.82+0
160.2	11.798	34.649	26.36	8.38	0.355		2.90+2	4.46+2									1.91+0
165.1	11.516	34.654	26.41	8.36	0.356		2.85+2	4.52+2									1.91+0
170.0	11.258	34.666	26.47	8.34	0.358		2.04+2	3.88+2									1.55+0
174.9	11.156	34.659	26.48	8.33	0.364		3.04+2										8.35+1
179.9	11.020	34.661	26.51	8.34	0.368		2.82+2										7.75+1
185.0	10.663	34.655	26.57	8.35	0.373		2.58+2										6.87+1
189.9	10.444	34.668	26.62	8.37	0.384												
194.9	10.339	34.669	26.64	8.37	0.393												
199.8	10.269	34.670	26.65	8.38	0.408												
205.0	10.189	34.668	26.66	8.38	0.409												
209.9	10.090	34.672	26.68	8.40	0.417												
214.9	10.031	34.670	26.69	8.41	0.424												
219.9	9.958	34.669	26.70	8.43	0.427												
224.8	9.729	34.666	26.71	8.42	0.438												
229.7	9.837	34.664	26.72	8.41	0.431												
234.6	9.781	34.667	26.73	8.42	0.432												
239.6	9.734	34.667	26.74	8.43	0.428												

Spectral Radiometer Data File : DISCO 3 UP CAST.MDAT

page 1

Cast Label : RP-9-D1-B4 LEG 2 STATION 3 2-MAR-84 1600 L UP CAST
 Lat. 6.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam		Irradiance $\mu\text{W}/\text{cm}^2/\text{nm}$										ΣIRR
M	deg C	ppt	&-T	V.	Atten	410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	589 nm	625 nm	671 nm	694 nm		
1.0	26.910	34.568	22.43	0.04	0.417	5.51+1	5.18+1	5.93+1	5.07+1	4.74+1	4.66+1	4.35+1	3.25+1	2.93+1	2.52+1	1.92+1	1.16+4
6.0	26.896	34.587	22.45	0.98	0.417	4.79+1	4.64+1	5.49+1	4.83+1	4.12+1	3.96+1	3.39+1	1.79+1	6.21+0	2.50+0	1.14+0	8.27+3
11.0	26.866	34.594	22.46	1.09	0.416	2.15+1	2.05+1	2.42+1	2.12+1	1.68+1	1.48+1	1.15+1	4.46+0	5.92-1	1.47-1	5.01-2	3.22+3
15.0	26.778	34.589	22.48	1.38	0.423	2.30+1	2.26+1	2.70+1	2.41+1	1.65+1	1.48+1	1.05+1	2.88+0	1.31-1	3.38-2	1.54-2	3.36+3
20.0	26.751	34.591	22.50	1.31	0.423	2.49+1	2.19+1	2.49+1	2.15+1	1.24+1	1.05+1	6.27+0	1.23+0	2.54-2	2.03-2		2.89+3
25.0	26.743	34.592	22.50	1.37	0.423	2.23+1	1.97+1	2.24+1	1.95+1	9.91+0	7.90+0	4.38+0	6.31-1		1.77-2		2.49+3
30.0	26.738	34.591	22.50	1.51	0.424	1.82+1	1.58+1	1.80+1	1.56+1	7.02+0	5.30+0	2.76+0	3.33-1				1.94+3
35.0	26.736	34.591	22.50	1.60	0.422	1.45+1	1.34+1	1.52+1	1.33+1	5.10+0	3.87+0	1.85+0	1.81-1				1.58+3
40.0	26.734	34.594	22.50	1.68	0.418	1.17+1	1.09+1	1.23+1	1.08+1	3.78+0	2.73+0	1.20+0	9.97-2				1.25+3
45.0	26.732	34.593	22.50	1.74	0.417	9.85+0	8.96+0	1.05+1	9.04+0	2.93+0	2.04+0	8.30-1	5.88-2				1.83+3
50.0	26.733	34.598	22.50	1.80	0.415	8.00+0	7.06+0	8.39+0	7.53+0	2.17+0	1.46+0	5.43-1	3.32-2				8.22+2
55.0	26.732	34.593	22.50	1.82	0.412	6.40+0	5.70+0	6.85+0	5.95+0	1.64+0	1.07+0	3.73-1					6.49+2
60.0	26.733	34.593	22.50	1.80	0.407	5.86+0	4.66+0	5.57+0	5.11+0	1.28+0	8.22-1	2.60-1				5.34+2	
65.0	26.729	34.587	22.50	1.83	0.405	3.81+0	3.63+0	4.47+0	4.21+0	9.69-1	5.98-1	1.74-1					4.21+2
70.0	26.729	34.585	22.50	1.74	0.402	3.63+0	3.54+0	4.45+0	4.25+0	9.17-1	5.51-1	1.54-1					4.14+2
75.0	26.416	34.785	22.75	2.43	0.482	2.25+0	2.26+0	2.91+0	2.84+0	5.66-1	3.28-1	8.70-2					2.67+2
80.0	25.342	34.768	23.07	2.28	0.396	1.41+0	1.46+0	1.94+0	1.93+0	3.66-1	2.08-1	5.07-2					1.76+2
85.0	24.078	34.831	23.50	2.06	0.396	9.67-1	1.05+0	1.43+0	1.45+0	2.63-1	1.47-1	3.28-2					1.28+2
90.0	23.741	34.739	23.52	1.68	0.389	6.15-1	6.91-1	9.63-1	9.92-1	1.71-1	9.71-2	1.95-2					8.53+1
95.0	21.897	34.723	24.04	1.39	0.383	3.25-1	3.77-1	5.33-1	5.48-1	8.53-2	4.88-2						4.62+1
100.0	19.491	34.728	24.68	1.33	0.376	4.20-1	5.21-1	7.56-1	7.82-1	1.05-1	6.88-2						6.48+1
105.0	18.464	34.654	24.98	1.11	0.371	2.73-1	3.78-1	5.66-1	5.99-1	7.73-2	4.70-2						4.73+1
110.0	16.849	34.633	25.27	0.86	0.369	1.77-1	2.68-1	4.26-1	4.57-1	5.48-2							3.41+1
115.0	15.643	34.682	25.53	0.77	0.368	1.18-1	1.98-1	3.35-1	3.65-1	3.70-2							2.62+1
120.0	14.946	34.595	25.67	0.64	0.367	7.79-2	1.52-1	2.76-1	3.15-1	3.17-2							2.13+1
125.0	14.185	34.592	25.84	0.47	0.366			1.05-1	2.02-1	2.40-1							1.42+1
130.0	13.765	34.595	25.93	0.40	0.364			8.96-2	1.95-1	2.36-1							1.35+1
135.0	13.354	34.585	26.00	0.40	0.363			4.99-2	1.18-1	1.47-1							8.18+0
140.0	12.898	34.591	26.10	0.31	0.368			2.69-2	6.47-2	8.31-2							4.55+0
145.0	12.560	34.598	26.17	0.28	0.361			1.63-2	4.05-2	5.27-2							2.85+0
150.0	12.267	34.681	26.23	0.46	0.363				4.72-2	5.64-2							2.66+0
155.0	11.909	34.632	26.32	0.41	0.364				4.44-2	5.31-2							2.50+0
160.0	11.577	34.652	26.48	0.38	0.364					3.88-2							1.07+0
165.0	11.333	34.983	26.64	0.36	0.364												
170.0	11.199	34.668	26.48	0.35	0.426												
174.0	11.077	34.658	26.58	0.36	0.364												
180.0	10.794	34.649	26.54	0.38	0.366												
185.0	10.491	34.663	26.61	0.36	0.369												
190.0	10.392	34.667	26.63	0.39	0.369												
194.0	10.302	34.668	26.64	0.39	0.369												
199.0	10.230	34.670	26.66	0.41	0.369												
204.0	10.118	34.671	26.68	0.42	0.371												
210.0	10.081	34.672	26.68	0.42	0.371												
214.0	9.968	34.671	26.70	0.42	0.371												
219.0	9.946	34.669	26.71	0.43	0.373												
224.0	9.888	34.667	26.71	0.44	0.377												
229.0	9.782	34.667	26.73	0.42	0.378												
234.0	9.767	34.667	26.73	0.42	0.379												
239.0	9.741	34.666	26.74	0.43	0.382												

Spectral Radiometer Data File : DISCO 4 DN CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 4 3-MAR-84 1030 DOWN CAST
 Lat. 4.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	528 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ JRK	:W/cm ² :
M	deg C	ppt	a-T	V.	Atten													
2.1	26.916	34.427	22.32	0.57	0.426	2.10+2	2.00+2	2.35+2	2.07+2	1.98+2	1.86+2	1.41+2	1.09+2	8.51+1	6.48+1	4.63+4		
7.0	26.881	34.432	22.33	0.55	0.409	1.92+2	1.88+2	2.10+2	1.85+2	1.57+2	1.52+2	1.32+2	7.15+1	2.39+1	9.72+0	4.52+0	3.20+4	
11.9	26.834	34.424	22.34	0.74	0.418	1.75+2	1.65+2	1.91+2	1.67+2	1.31+2	1.22+2	9.71+1	4.08+1	6.10+0	1.38+0	4.62+1	2.62+4	
16.9	26.797	34.427	22.36	0.94	0.428	1.47+2	1.42+2	1.67+2	1.49+2	1.07+2	9.81+1	7.35+1	2.34+1	1.51+8	2.62-1	9.05-2	2.16+4	
21.9	26.798	34.429	22.36	1.02	0.428	1.29+2	1.25+2	1.48+2	1.31+2	8.54+1	7.55+1	5.19+1	1.27+1	3.76-1	1.13-1	5.52-2	1.80+4	
26.8	26.781	34.431	22.37	1.17	0.419	1.15+2	1.09+2	1.29+2	1.15+2	6.78+1	5.81+1	3.71+1	7.21+0	1.35-1	9.61-2	5.00-2	1.50+4	
31.9	26.766	34.436	22.37	1.27	0.428	9.89+1	9.41+1	1.11+2	9.98+1	5.27+1	4.37+1	2.56+1	3.62+0	6.07-2	8.68-2	4.48-2	1.25+4	
36.7	26.750	34.442	22.38	1.32	0.419	8.46+1	8.03+1	9.54+1	8.62+1	4.14+1	3.34+1	1.82+1	2.86+0	4.38-2	7.79-2	3.99-2	1.04+4	
41.7	26.734	34.445	22.39	1.48	0.417	7.10+1	6.79+1	8.18+1	7.37+1	3.25+1	2.55+1	1.30+1	1.21+0	3.42-2	6.93-2	3.49-2	8.61+3	
46.7	26.704	34.457	22.41	1.48	0.416	5.97+1	5.78+1	6.85+1	6.27+1	2.54+1	1.95+1	8.80+0	7.29-1	2.70-2	6.22-2	3.81-2	7.12+3	
51.8	26.672	34.462	22.42	1.65	0.415	4.96+1	4.75+1	5.75+1	5.38+1	1.96+1	1.46+1	5.94+0	4.34-1	2.98-2	5.49-2	2.85-2	5.85+3	
56.7	26.561	34.483	22.47	1.77	0.415	4.09+1	3.92+1	4.78+1	4.44+1	1.51+1	1.06+1	4.10+0	2.70-1		4.98-2	2.62-2	4.77+3	
61.7	26.448	34.516	22.53	1.88	0.409	3.27+1	3.18+1	3.93+1	3.69+1	1.19+1	7.81+0	2.95+0	1.81-1		4.38-2	2.29-2	3.86+3	
66.6	26.389	34.538	22.57	2.05	0.404	2.68+1	2.61+1	3.25+1	3.08+1	8.75+0	5.59+0	1.95+0	1.17-1		3.73-2		3.14+3	
71.6	26.333	34.564	22.61	2.13	0.405	2.21+1	2.16+1	2.72+1	2.60+1	6.65+0	4.24+0	1.41+0	8.76-2		3.42-2		2.59+3	
76.6	26.055	34.589	22.71	2.26	0.399	1.63+1	1.75+1	2.25+1	2.18+1	5.21+0	3.25+0	1.02+0	6.78-2		2.96-2		2.89+3	
81.6	25.446	34.513	22.84	2.22	0.398	1.23+1	1.38+1	1.82+1	1.80+1	3.94+0	2.38+0	7.11-1	5.19-2		2.51-2		1.66+3	
86.5	24.134	34.767	23.43	2.29	0.389	8.97+0	1.04+1	1.44+1	1.45+1	3.81+0	1.76+0	5.08-1	4.06-2		2.28-2		1.29+3	
91.5	23.145	34.852	23.78	2.24	0.388	6.34+0	7.49+0	1.11+1	1.15+1	2.23+0	1.26+0	3.47-1	3.11-2				9.74+2	
96.5	21.089	34.775	24.08	1.87	0.382	4.58+0	5.67+0	8.32+0	8.99+0	1.67+0	9.13-1	2.40-1					7.36+2	
101.5	28.726	34.788	24.41	1.68	0.376	3.14+0	4.29+0	6.57+0	7.03+0	1.30+0	6.92-1	1.82-1					5.66+2	
106.4	20.114	34.567	24.48	1.42	0.375	2.11+0	3.16+0	5.08+0	5.53+0	9.66-1	4.91-1	1.29-1					4.29+2	
111.4	18.770	34.452	24.82	1.10	0.373	1.39+0	2.32+0	3.95+0	4.40+0	7.19-1	3.46-1	9.36-2					3.27+2	
116.4	17.773	34.473	25.08	0.88	0.371	9.33-1	1.74+0	3.11+0	3.53+0	5.48-1	2.45-1	7.20-2					2.53+2	
121.3	16.673	34.529	25.23	0.72	0.369	6.19-1	1.29+0	2.46+0	2.86+0	4.10-1	1.79-1	5.29-2					1.97+2	
126.4	15.587	34.618	25.55	0.54	0.364	3.99-1	9.67-1	1.96+0	2.33+0	3.20-1	1.27-1	4.36-2					1.55+2	
131.2	15.174	34.609	25.63	0.46	0.364	2.64-1	7.28-1	1.57+0	1.91+0	2.47-1	8.75-2						1.22+2	
136.2	14.589	34.542	25.71	0.48	0.363	1.74-1	5.53-1	1.27+0	1.57+0	1.89-1	6.55-2						9.72+1	
141.2	13.574	34.442	25.85	0.35	0.361	1.15-1	4.16-1	1.02+0	1.31+0	1.58-1							7.71+1	
146.1	12.909	34.591	26.18	0.32	0.368	7.71-2	3.19-1	8.38-1	1.09+0	1.19-1							6.26+1	
151.1	12.388	34.638	26.24	0.32	0.361		2.48-1	6.75-1	9.03-1	8.93-2							4.96+1	
156.1	11.921	34.592	26.29	0.30	0.368		1.82-1	5.49-1	7.51-1	7.49-2							4.05+1	
161.1	11.396	34.585	26.38	0.28	0.368		1.35-1	4.42-1	6.25-1	5.63-2							3.27+1	
166.1	11.162	34.565	26.41	0.28	0.368		1.02-1	3.59-1	5.21-1	4.55-2							2.68+1	
171.1	10.987	34.578	26.45	0.30	0.368		7.92-2	2.98-1	4.34-1	4.36-2							2.22+1	
176.1	10.812	34.577	26.48	0.29	0.362		5.92-2	2.37-1	3.63-1								1.72+1	
181.0	10.668	34.568	26.58	0.28	0.364		4.43-2	1.91-1	3.03-1								1.40+1	
186.1	10.493	34.588	26.55	0.29	0.366			1.55-1	2.52-1								1.06+1	
190.9	10.410	34.571	26.55	0.29	0.371			1.27-1	2.10-1								8.77+0	
195.8	10.281	34.565	26.57	0.29	0.373			9.72-2	1.75-1								7.11+0	
200.9	10.131	34.596	26.62	0.28	0.375			7.98-2	1.46-1								5.98+0	
205.8	10.073	34.600	26.63	0.28	0.382			6.86-2	1.22-1								4.97+0	
210.8	10.020	34.604	26.64	0.28	0.386			5.11-2	1.01-1								3.98+0	
215.8	9.969	34.609	26.65	0.28	0.391			4.03-2	8.36-2								3.25+0	
220.9	9.925	34.614	26.67	0.29	0.395				6.93-2								1.91+0	
225.8	9.944	34.629	26.68	0.29	0.400				5.67-2								1.56+0	
230.7	9.895	34.638	26.68	0.29	0.402				4.54-2								1.25+0	
235.7	9.885	34.647	26.70	0.30	0.404													
240.6	9.862	34.646	26.70	0.29	0.404													

Spectral Radiometer Data File : DISCO 4 UP CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 4 3-MAR-84 1030 L UP CAST
 Lat. 4.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	528 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR	-W/cm ² -
M	deg C	ppt	g-T	V.	Atten													
1.1	26.930	34.429	22.32	3.33	1.113	2.57+1	1.91+1	1.93+1	1.52+1	7.69+8	6.84+8	4.14+8	1.79+8	7.59-1	4.81-1	3.25-1	2.33+3	
5.9	26.918	34.426	22.32	0.58	0.409	2.31+1	1.73+1	1.76+1	1.48+1	7.10+8	5.39+8	3.49+8	1.17+8	2.16-1	9.41-2	4.47-2	2.06+3	
11.0	26.858	34.428	22.34	0.63	0.415	2.06+1	1.57+1	1.62+1	1.38+1	6.57+8	5.14+8	3.11+8	8.33-1	7.37-2	3.97-2	1.99-2	1.87+3	
15.9	26.806	34.429	22.35	0.68	0.420	1.88+1	1.45+1	1.51+1	1.23+1	5.87+8	4.35+8	2.56+8	5.65-1	3.58-2	3.82-2	1.99-2	1.70+3	
20.8	26.790	34.428	22.36	0.88	0.416	1.69+1	1.33+1	1.41+1	1.16+1	5.32+8	3.88+8	2.17+8	4.08-1	1.89-2	3.45-2	1.78-2	1.56+3	
25.9	26.781	34.431	22.36	0.99	0.423	1.54+1	1.22+1	1.31+1	1.08+1	4.36+8	3.10+8	1.58+8	2.33-1	1.39-2	3.34-2	1.62-2	1.40+3	
30.9	26.770	34.437	22.37	1.02	0.419	1.36+1	1.09+1	1.18+1	9.95+8	3.62+8	2.61+8	1.26+8	1.62-1		2.97-2	1.48-2	1.24+3	
35.9	26.756	34.441	22.38	1.18	0.417	1.19+1	9.59+8	1.05+1	8.94+8	2.96+8	2.08+8	9.38-1	1.08-1		2.82-2	1.40-2	1.09+3	
40.8	26.738	34.448	22.39	1.27	0.416	9.44+8	8.23+8	9.16+8	7.88+8	2.42+8	1.65+8	7.01-1	7.82-2		2.61-2		9.21+2	
45.8	26.697	34.457	22.41	1.52	0.416	7.79+8	6.94+8	7.79+8	6.77+8	1.95+8	1.31+8	5.27-1	5.87-2		2.17-2		7.73+2	
50.8	26.628	34.475	22.45	1.62	0.414	6.13+8	5.61+8	6.48+8	5.65+8	1.48+8	9.56-1	3.61-1	3.78-2		1.81-2		6.23+2	
55.7	26.536	34.494	22.49	1.54	0.409	5.04+8	4.34+8	5.13+8	4.61+8	1.13+8	7.11-1	2.58-1	3.18-2		1.86-2		4.96+2	
60.7	26.422	34.513	22.54	2.06	0.408	4.08+8	3.57+8	4.21+8	3.77+8	8.89-1	5.45-1	1.87-1	2.49-2		1.55-2		4.04+2	
65.6	26.374	34.537	22.57	1.82	0.404	3.19+8	2.83+8	3.48+8	3.89+8	6.68-1	4.08-1	1.32-1	1.88-2		1.37-2		3.22+2	
70.6	26.266	34.562	22.63	1.78	0.408	2.45+8	2.24+8	2.75+8	2.54+8	5.24-1	3.87-1	9.81-2	1.52-2		1.14-2		2.57+2	
75.5	25.981	34.637	22.88	1.97	0.396	1.84+8	1.73+8	2.18+8	2.05+8	4.04-1	2.34-1	7.46-2					2.01+2	
80.6	24.915	34.713	23.16	2.02	0.393	1.29+8	1.27+8	1.68+8	1.63+8	2.96-1	1.71-1	5.25-2					1.51+2	
85.6	23.474	34.863	23.70	2.05	0.386	8.97-1	9.47-1	1.29+8	1.28+8	2.32-1	1.28-1	4.25-2					1.15+2	
90.4	22.947	34.821	23.82	2.04	0.388	6.24-1	6.97-1	9.91-1	1.02+8	1.74-1	9.37-2	3.00-2					8.72+1	
95.5	21.187	34.781	24.28	1.56	0.381	4.21-1	5.16-1	7.71-1	8.03-1	1.34-1	7.88-2						6.60+1	
100.5	20.439	34.785	24.48	1.38	0.377	2.74-1	3.68-1	5.84-1	6.26-1	9.81-2	5.54-2						4.90+1	
105.4	19.023	34.732	24.81	1.09	0.375	1.82-1	2.67-1	4.43-1	4.86-1	7.39-2	4.48-2						3.67+1	
110.4	18.173	34.664	24.98	0.91	0.373	1.15-1	1.89-1	3.38-1	3.78-1	5.39-2	3.17-2						2.73+1	
115.3	16.685	34.627	25.31	0.78	0.371	7.63-2	1.33-1	2.57-1	3.00-1	3.76-2							2.01+1	
120.4	15.557	34.614	25.55	0.56	0.366	4.58-2	9.89-2	2.05-1	2.40-1	2.80-2							1.56+1	
125.4	15.188	34.629	25.65	0.58	0.366		7.08-2	1.59-1	1.93-1	2.21-2							1.16+1	
130.3	14.811	34.584	25.78	0.45	0.364		5.14-2	1.22-1	1.52-1								8.47+0	
135.2	13.622	34.753	26.08	0.38	0.366		3.72-2	9.19-2	1.19-1								6.46+0	
140.1	13.191	34.575	26.83	0.34	0.364		2.53-2	7.41-2	9.37-2								5.82+0	
145.1	12.617	34.561	26.13	0.35	0.364			5.61-2	7.52-2								3.39+0	
150.1	12.144	34.605	26.26	0.34	0.364			4.58-2	6.12-2								2.76+0	
155.1	11.850	34.588	26.29	0.32	0.365			3.25-2	4.98-2								2.13+0	
160.1	11.521	34.593	26.37	0.31	0.365			2.45-2	4.01-2								1.68+0	
165.1	11.269	34.578	26.40	0.31	0.366				3.22-2								8.85-1	
170.1	11.067	34.598	26.45	0.32	0.366				2.63-2								7.22-1	
175.0	10.957	34.584	26.46	0.35	0.367				2.19-2								6.82-1	
180.0	10.887	34.587	26.49	0.34	0.369													
185.0	10.689	34.588	26.51	0.32	0.369													
189.9	10.508	34.599	26.55	0.32	0.369													
195.0	10.420	34.587	26.56	0.33	0.370													
199.8	10.237	34.595	26.68	0.31	0.371													
204.9	10.112	34.607	26.63	0.31	0.371													
210.0	10.057	34.602	26.63	0.32	0.371													
214.8	9.997	34.613	26.65	0.32	0.372													
219.8	9.947	34.614	26.66	0.38	0.373													
224.7	9.923	34.618	26.67	0.31	0.373													
229.7	9.937	34.637	26.68	0.31	0.373													
234.7	9.878	34.639	26.69	0.31	0.373													
239.7	9.883	34.650	26.70	0.32	0.375													

Spectral Radiometer Data File : DISCO 5 ON CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 5 AT EQUATOR 4-MAR-84 1250L ON
 Lat. 0.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	418 nm	441 nm	465 nm	488 nm	526 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR	-W/cm ² -
M	deg C	ppt	&-T	V.	Atten													
1.1	26.121	34.935	22.95	1.88	0.465	2.38+2	2.19+2	2.59+2	2.29+2	2.25+2	2.27+2	2.17+2	1.75+2	1.62+2	1.43+2	1.28+2	5.63+4	
6.0	26.094	34.931	22.96	1.28	0.455	1.97+2	1.87+2	2.24+2	2.01+2	1.84+2	1.81+2	1.61+2	9.75+1	4.15+1	2.82+1	1.10+1	3.70+4	
11.0	25.748	34.929	23.06	1.88	0.474	1.71+2	1.59+2	1.91+2	1.74+2	1.45+2	1.39+2	1.14+2	5.02+1	9.38+0	2.34+0	8.45+1	2.77+4	
15.9	25.676	34.930	23.09	2.26	0.479	1.43+2	1.31+2	1.61+2	1.48+2	1.15+2	1.08+2	8.26+1	2.81+1	2.39+0	4.41+1	1.49+1	2.19+4	
20.9	25.605	34.945	23.12	2.59	0.484	1.13+2	1.06+2	1.32+2	1.25+2	9.84+1	8.29+1	5.88+1	1.53+1	5.31+1	1.44+1	6.77+2	1.72+4	
25.8	25.468	34.939	23.16	2.97	0.487	9.39+1	8.58+1	1.08+2	1.03+2	6.93+1	6.28+1	4.87+1	8.36+0	1.69+1	1.13+1	5.97+2	1.35+4	
30.8	25.302	34.958	23.22	3.43	0.488	7.53+1	6.77+1	8.69+1	8.48+1	5.32+1	4.65+1	2.84+1	4.39+0	7.17+2	1.02+1	5.27+2	1.06+4	
35.8	25.182	34.984	23.28	3.83	0.486	5.86+1	5.25+1	6.89+1	6.88+1	4.07+1	3.48+1	1.99+1	2.46+0	4.42+2	8.38+2	4.38+2	8.19+3	
40.8	24.958	34.985	23.35	4.28	0.482	4.61+1	4.05+1	5.41+1	5.53+1	3.86+1	2.56+1	1.36+1	1.35+0	3.61+2	7.32+2	3.67+2	6.31+3	
45.8	24.669	35.033	23.47	4.68	0.488	3.43+1	3.83+1	4.17+1	4.39+1	2.33+1	1.93+1	9.39+0	8.06+1	2.61+2	6.12+2	2.99+2	4.81+3	
50.7	24.413	35.031	23.55	5.03	0.474	2.56+1	2.25+1	3.18+1	3.44+1	1.75+1	1.43+1	6.26+8	4.76+1	2.23+2	4.96+2	2.37+2	3.62+3	
55.7	24.184	35.071	23.65	5.57	0.471	1.87+1	1.64+1	2.37+1	2.65+1	1.29+1	1.08+1	4.17+0	2.77+1		4.19+2		2.67+3	
60.7	23.903	35.027	23.70	5.94	0.471	1.22+1	1.16+1	1.74+1	2.08+1	9.38+0	6.85+0	2.75+0	1.66+1		3.23+2		1.92+3	
65.6	23.534	35.001	23.78	6.21	0.466	8.26+0	7.55+0	1.25+1	1.49+1	6.27+0	4.72+0	1.78+0	9.93+2		2.48+2		1.34+3	
70.6	23.257	35.039	23.89	6.13	0.468	5.43+0	5.85+0	8.31+0	1.08+1	4.34+0	3.22+0	1.14+0	6.22+2		1.86+2		9.24+2	
75.5	22.728	35.075	24.08	5.85	0.456	3.71+0	3.53+0	6.08+0	7.76+0	3.14+0	2.29+0	7.76+1	4.32+2				6.57+2	
80.5	22.306	35.137	24.24	5.99	0.442	2.46+0	2.42+0	4.28+0	5.57+0	2.23+0	1.59+0	5.16+1	2.64+2				4.62+2	
85.6	21.318	35.283	24.63	4.56	0.423	1.63+0	1.68+0	3.07+0	4.08+0	1.56+0	1.07+0	3.31+1					3.26+2	
90.5	20.809	35.175	24.68	3.62	0.410	1.09+0	1.21+0	2.38+0	3.10+0	1.12+0	7.43+1	2.20+1					2.39+2	
95.5	20.181	35.322	24.96	2.96	0.482	7.59+1	9.82+1	1.78+0	2.42+0	8.19+1	5.26+1	1.50+1					1.88+2	
100.4	19.719	35.287	25.86	2.68	0.482	5.35+1	6.85+1	1.48+0	1.93+0	6.11+1	3.66+1	1.05+1					1.39+2	
105.4	18.338	35.165	25.32	2.84	0.397	3.74+1	5.30+1	1.12+0	1.57+0	4.64+1	2.71+1	7.59+2					1.89+2	
110.3	18.024	35.155	25.39	1.67	0.394	2.71+1	4.12+1	9.08+1	1.29+0	3.52+1	1.98+1	5.39+2					8.66+1	
115.4	17.867	35.137	25.41	1.33	0.389	1.96+1	3.34+1	7.58+1	1.07+0	2.76+1	1.45+1	4.24+2					7.84+1	
120.3	16.902	34.955	25.51	1.24	0.389	1.30+1	2.57+1	6.22+1	8.99+1	2.11+1	9.57+2						5.58+1	
125.4	16.600	34.992	25.61	1.21	0.386	8.79+2	2.06+1	5.23+1	7.62+1	1.68+1	6.93+2						4.58+1	
130.2	16.576	35.061	25.66	0.97	0.382				1.69+1	4.46+1	6.55+1	1.22+1	5.22+2				3.73+1	
135.2	16.398	35.094	25.73	0.81	0.378				1.42+1	3.88+1	5.66+1	9.75+2					3.89+1	
140.1	16.103	34.955	25.69	0.73	0.377				1.15+1	3.24+1	4.88+1	8.16+2					2.63+1	
145.1	15.609	35.028	25.86	0.63	0.375				9.39+2	2.75+1	4.18+1	6.33+2					2.22+1	
150.1	15.419	35.006	25.89	0.59	0.373				7.34+2	2.31+1	3.56+1	4.58+2					1.84+1	
155.1	15.200	34.972	25.91	0.58	0.372				6.21+2	1.95+1	3.86+1	3.78+2					1.57+1	
160.1	15.196	35.063	25.98	0.54	0.371				5.12+2	1.68+1	2.65+1						1.27+1	
165.1	14.833	34.783	25.84	0.36	0.378					1.43+1	2.33+1						9.76+8	
170.1	14.254	34.896	26.06	0.46	0.371					1.22+1	2.84+1						8.49+8	
174.9	14.076	34.891	26.09	0.47	0.369					1.16+1	1.79+1						7.64+8	
180.0	13.928	34.872	26.11	0.49	0.378					8.98+2	1.56+1						6.48+8	
185.0	13.790	34.864	26.13	0.52	0.369					7.48+2	1.36+1						5.58+8	
189.9	13.645	34.892	26.18	0.51	0.370					6.81+2	1.18+1						4.85+8	
195.0	13.574	34.912	26.21	0.83	0.378					5.54+2	1.02+1						4.11+8	
199.9	13.516	34.865	26.19	0.48	0.371					4.44+2	8.66+2						3.42+8	
204.9	13.172	34.813	26.22	0.49	0.372						7.24+2						1.99+8	
210.0	13.027	34.929	26.34	0.08	0.373						5.96+2						1.64+8	
214.9	12.922	34.998	26.40	0.01	0.375						4.84+2						1.33+8	
219.8	12.802	34.946	26.39	0.01	0.375													
224.7	12.671	34.852	26.35	0.49	0.374													
229.7	12.568	34.962	26.45	0.04	0.375													
234.7	12.496	34.939	26.45	-0.01	0.374													
239.7	12.471	34.894	26.42	-0.01	0.373													

Spectral Radiometer Data File : DISCO 5 UP CAST.MDAT

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 5 AT EQUATOR 4-MAR-84 1330 UP
 Lat. 0.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	418 nm	441 nm	465 nm	488 nm	520 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR
M	deg C	ppt	#-T	V.	Atten												
0.9	26.123	34.912	22.93	0.73	0.525	6.31+1	5.34+1	5.99+1	5.08+1	4.49+1	4.34+1	3.93+1	2.92+1	2.41+1	1.93+1	1.54+1	1.10+4
5.9	25.757	34.914	23.05	0.75	0.467	4.43+1	3.70+1	4.18+1	3.57+1	2.83+1	2.62+1	2.15+1	1.15+1	4.11+0	1.65+0	8.22+1	6.06+3
10.9	25.661	34.915	23.08	0.96	0.478	2.46+1	2.81+1	2.33+1	2.04+1	1.45+1	1.38+1	9.58+0	3.52+0	4.41-1	1.21-1	4.93-2	3.05+3
15.9	25.591	34.893	23.09	1.24	0.486	1.58+1	1.25+1	1.45+1	1.29+1	8.12+0	6.96+0	4.54+0	1.08+0	6.07-2	4.32-2	2.23-2	1.78+3
20.9	25.446	34.897	23.13	1.55	0.491	1.09+1	8.42+0	9.98+0	9.11+0	5.26+0	4.25+0	2.40+0	4.46-1	1.81-2	4.83-2	2.08-2	1.18+3
25.8	25.244	34.919	23.21	1.79	0.499	8.91+0	6.86+0	8.31+0	7.81+0	3.95+0	3.82+0	1.57+0	2.27-1	1.19-2	3.99-2	2.08-2	9.48+2
30.8	25.041	34.921	23.27	2.25	0.487	6.88+0	5.11+0	6.75+0	6.38+0	2.91+0	2.21+0	1.85+0	1.29-1		3.81-2	1.99-2	7.31+2
35.9	24.913	34.834	23.25	2.25	0.484	4.16+0	3.86+0	3.97+0	3.98+0	1.71+0	1.26+0	5.45-1	6.45-2		2.76-2		4.37+2
40.8	24.658	34.966	23.43	2.37	0.484	2.52+0	1.87+0	2.58+0	2.58+0	1.08+0	7.81-1	3.23-1	3.83-2		2.26-2		2.74+2
45.7	24.412	34.962	23.58	2.64	0.488	1.84+0	1.36+0	1.87+0	2.00+0	7.97-1	5.62-1	2.19-1	2.93-2		1.97-2		2.04+2
50.8	24.163	34.955	23.56	3.01	0.475	8.97-1	6.62-1	9.51-1	1.05+0	4.03-1	2.85-1	1.06-1	1.73-2		1.12-2		1.03+2
55.7	23.948	34.811	23.52	3.31	0.478	7.73-1	5.74-1	8.59-1	9.85-1	3.68-1	2.54-1	8.95-2					9.19+1
60.7	23.682	34.983	23.49	3.25	0.472	4.21-1	3.21-1	5.80-1	5.86-1	2.21-1	1.53-1	5.33-2					5.33+1
65.5	23.282	34.838	23.73	3.24	0.465	3.29-1	2.58-1	4.18-1	5.06-1	1.87-1	1.28-1	4.26-2					4.44+1
70.6	22.842	34.816	23.84	3.36	0.458	2.47-1	2.82-1	3.35-1	4.16-1	1.51-1	1.03-1	3.24-2					3.55+1
75.5	22.370	35.021	24.13	2.68	0.451	2.14-1	1.83-1	3.14-1	3.98-1	1.45-1	9.79-2	2.87-2					3.31+1
80.5	21.586	35.055	24.38	2.27	0.434	1.68-1	1.58-1	2.67-1	3.46-1	1.21-1	8.23-2	2.37-2					2.79+1
85.7	20.703	35.059	24.62	1.75	0.415	1.21-1	1.16-1	2.15-1	2.82-1	9.51-2	6.28-2						2.16+1
90.4	20.319	35.067	24.73	1.73	0.487	8.58-2	8.95-2	1.73-1	2.29-1	7.26-2	4.86-2						1.70+1
95.5	19.665	35.043	24.89	1.25	0.397	5.85-2	6.65-2	1.33-1	1.73-1	5.33-2	3.11-2						1.26+1
100.4	18.905	34.977	25.03	1.23	0.397	3.74-2	4.66-2	5.76-2	1.31-1	3.62-2	2.16-2						9.13+0
105.4	18.110	35.107	25.33	0.97	0.397				3.65-2	7.72-2	1.84-1	2.75-2	1.99-2				6.78+0
110.4	17.928	35.068	25.34	0.81	0.391				2.65-2	5.83-2	7.97-2	1.75-2					4.75+0
115.4	17.537	34.868	25.29	0.68	0.391				1.93-2	4.56-2	6.18-2						3.30+0
120.3	16.687	34.904	25.52	0.64	0.389				3.84-2	5.20-2							2.33+0
125.3	16.502	35.062	25.68	0.55	0.383				2.92-2	4.04-2							1.88+0
130.3	16.492	35.085	25.64	0.54	0.388				2.23-2	3.26-2							1.42+0
135.2	16.308	35.081	25.68	0.48	0.379				1.86-2	2.72-2							1.19+0
140.1	15.858	34.830	25.65	0.31	0.388					2.01-2							5.52-1
145.1	15.545	34.872	25.76	0.29	0.376					1.68-2							4.63-1
150.1	15.245	34.915	25.86	0.25	0.375												
155.1	15.142	34.896	25.86	0.28	0.373												
160.1	15.234	34.932	25.87	0.16	0.374												
165.1	14.447	34.794	25.94	0.25	0.375												
170.0	14.179	34.832	26.02	0.16	0.376												
174.9	14.828	34.836	26.06	0.18	0.375												
180.0	13.873	34.837	26.09	0.25	0.375												
185.0	13.757	34.815	26.10	0.27	0.374												
189.9	13.631	34.849	26.15	0.29	0.375												
195.0	13.546	34.869	26.18	0.32	0.375												
199.9	13.404	34.716	26.09	0.28	0.375												
204.9	13.052	34.885	26.23	0.27	0.376												
209.8	12.971	34.835	26.27	0.29	0.378												
214.8	12.835	34.836	26.30	0.23	0.379												
219.9	12.746	34.821	26.31	0.04	0.379												
224.8	12.610	34.844	26.35	0.25	0.388												
229.7	12.544	34.824	26.35	0.31	0.388												
234.7	12.484	34.815	26.35	0.08	0.378												
239.7	12.442	34.813	26.36	0.12	0.377												

Spectral Radiometer Data File : DISCO 6 DN CAST.MDAT

page 1

Cast Label : RP-9-D1-84 LEG 2 STA. 6 2 DEG S 5-MAR-84 1200L DN CAST
 Lat. 2.0000S Long. 158.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam		Irradiance $\mu\text{W}/\text{cm}^2/\text{nM}$			-LM/cm ² -							
M	deg C	ppt	&T	U.	Atten	418 nM	441 nM	465 nM	488 nM	520 nM	548 nM	568 nM	589 nM	625 nM	671 nM	694 nM	Σ IRR
1.0	26.327	28.383	17.95	8.91	0.684	1.25+2	1.17+2	1.35+2	1.17+2	1.11+2	1.11+2	1.05+2	8.18+1	7.69+1	6.74+1	5.51+1	2.88+4
5.9	26.318	34.823	22.81	1.44	0.443	7.62+1	7.11+1	8.25+1	7.18+1	6.12+1	5.98+1	5.13+1	2.89+1	1.14+1	5.23+0	2.48+8	1.27+4
10.9	26.139	34.910	22.93	1.58	0.446	7.10+1	6.58+1	7.66+1	6.78+1	5.15+1	4.88+1	3.82+1	1.57+1	2.46+0	6.11-1	2.89-1	1.04+4
15.9	26.118	34.911	22.94	1.66	0.446	6.22+1	5.75+1	6.74+1	5.94+1	4.11+1	3.71+1	2.72+1	8.38+0	5.48-1	1.10-1	3.91-2	8.54+3
20.8	26.108	34.914	22.94	1.08	0.452	5.49+1	5.10+1	6.81+1	5.34+1	3.35+1	2.93+1	1.97+1	4.37+0	1.40-1	5.35-2	2.56-2	7.22+3
25.9	26.095	34.906	22.94	1.96	0.446	4.66+1	4.34+1	5.16+1	4.62+1	2.63+1	2.23+1	1.38+1	2.34+0	5.11-2	4.14-2	2.14-2	5.95+3
30.8	26.083	34.909	22.95	2.18	0.444	3.91+1	3.65+1	4.37+1	3.95+1	2.85+1	1.69+1	9.50+0	1.30+0	3.03-2	3.70-2		4.87+3
35.8	26.077	34.908	22.95	2.18	0.445	3.28+1	3.87+1	3.71+1	3.38+1	1.68+1	1.28+1	6.36+0	7.14-1	2.28-2	3.28-2		4.81+3
40.8	26.073	34.912	22.95	2.26	0.442	2.76+1	2.58+1	3.14+1	2.89+1	1.26+1	9.53+0	4.51+0	4.30-1	2.06-2	2.87-2		3.31+3
45.7	26.066	34.918	22.95	2.65	0.448	2.29+1	2.16+1	2.64+1	2.45+1	9.82+0	6.98+0	3.10+0	2.56-1		2.56-2		2.72+3
50.8	26.061	34.907	22.95	2.53	0.438	1.98+1	1.79+1	2.21+1	2.07+1	7.37+0	5.11+0	2.13+0	1.57-1		2.34-2		2.23+3
55.7	26.059	34.907	22.95	2.59	0.437	1.59+1	1.51+1	1.88+1	1.77+1	5.66+0	3.98+0	1.54+0	1.04-1		2.03-2		1.86+3
60.7	26.049	34.907	22.95	2.72	0.435	1.22+1	1.25+1	1.56+1	1.49+1	4.32+0	2.87+0	1.05+0	6.77-2		1.80-2		1.51+3
65.6	26.035	34.906	22.96	2.88	0.432	1.08+1	1.04+1	1.32+1	1.26+1	3.35+0	2.14+0	7.39-1	4.63-2		1.64-2		1.25+3
70.6	26.014	34.909	22.97	3.06	0.431	8.28+0	6.75+0	1.11+1	1.08+1	2.63+0	1.64+0	5.34-1	3.52-2				1.84+3
75.6	25.988	34.898	22.96	3.15	0.426	6.78+0	6.84+0	9.38+0	9.17+0	2.86+0	1.24+0	3.88-1	3.10-2				8.55+2
80.6	25.935	34.865	22.96	3.38	0.419	5.56+0	5.67+0	7.83+0	7.58+0	1.62+0	9.46-1	2.84-1	2.38-2				7.81+2
85.6	25.799	34.933	23.05	3.37	0.415	4.68+0	4.76+0	6.32+0	6.51+0	1.29+0	7.27-1	2.89-1					5.83+2
90.5	24.973	35.383	23.65	3.36	0.410	3.73+0	3.98+0	5.38+0	5.43+0	1.84+0	5.67-1	1.63-1					4.85+2
95.5	23.987	35.461	24.00	3.38	0.404	2.98+0	2.31+0	4.57+0	4.68+0	8.47-1	4.45-1	1.24-1					4.87+2
100.4	23.155	35.393	24.19	3.36	0.401	2.25+0	2.59+0	3.65+0	3.00+0	6.34-1	3.14-1	9.85-2					3.21+2
105.4	21.918	35.275	24.45	3.37	0.397	1.66+0	2.01+0	2.92+0	3.10+0	4.88-1	2.33-1	6.66-2					2.54+2
110.4	20.683	35.304	24.82	3.31	0.396	1.26+0	1.62+0	2.41+0	2.62+0	3.96-1	1.82-1	5.38-2					2.08+2
115.4	19.108	35.075	25.05	3.14	0.396	8.61-1	1.19+0	1.84+0	2.03+0	2.93-1	1.21-1	3.99-2					1.56+2
120.4	17.741	35.234	25.52	2.72	0.391	5.77-1	8.68-1	1.41+0	1.68+0	2.16-1	8.61-2						1.17+2
125.3	16.765	35.111	25.66	2.35	0.389	3.98-1	6.66-1	1.14+0	1.32+0	1.72-1	6.05-2						9.31+1
130.3	15.471	34.987	25.86	1.77	0.383	2.78-1	5.01-1	9.13-1	1.08+0	1.34-1	4.68-2						7.36+1
135.1	15.175	35.093	26.01	1.68	0.381	1.85-1	3.93-1	7.52-1	9.07-1	1.09-1	3.91-2						5.99+1
140.1	14.867	34.986	25.99	1.49	0.381	1.31-1	3.21-1	6.58-1	8.02-1	9.29-2							5.86+1
145.1	13.971	34.963	26.17	1.20	0.377	7.82-2	2.11-1	4.51-1	5.72-1	6.20-2							3.49+1
150.1	13.673	34.947	26.22	1.08	0.375	5.82-2	1.66-1	3.82-1	4.96-1	5.15-2							2.93+1
155.1	13.556	34.934	26.23	0.97	0.374		1.27-1	3.14-1	4.23-1	4.16-2							2.36+1
160.2	13.388	34.939	26.27	0.87	0.371		8.97-2	2.31-1	3.20-1	3.16-2							1.75+1
165.1	13.308	34.916	26.27	0.81	0.378		7.05-2	2.04-1	2.97-1	2.73-2							1.56+1
170.0	13.189	34.925	26.38	0.71	0.368		4.34-2	1.39-1	2.04-1	2.03-2							1.66+1
175.0	13.079	34.922	26.32	0.64	0.367		4.73-2	1.56-1	2.37-1								1.15+1
180.0	13.011	34.916	26.33	0.61	0.366		3.15-2	1.08-1	1.72-1								8.13+0
185.0	12.963	34.911	26.33	0.61	0.365		2.47-2	9.43-2	1.53-1								7.09+0
189.9	12.939	34.909	26.34	0.59	0.366		1.96-2	7.74-2	1.32-1								5.97+0
194.9	12.884	34.910	26.35	0.56	0.365			7.37-2	1.23-1								5.12+0
199.9	12.856	34.907	26.35	0.58	0.366			5.91-2	1.05-1								4.28+0
204.9	12.820	34.904	26.36	0.57	0.365			4.93-2	9.06-2								3.65+0
210.0	12.768	34.895	26.36	0.58	0.365			4.15-2	7.87-2								3.14+0
215.0	12.749	34.892	26.36	0.58	0.364			3.31-2	6.71-2								2.62+0
219.8	12.676	34.890	26.38	0.59	0.364			3.79-2	8.06-2								3.11+0
224.7	12.621	34.884	26.38	0.61	0.365				7.01-2								1.93+0
229.7	12.570	34.881	26.39	0.61	0.365				7.87-2								2.16+0
234.7	12.500	34.897	26.42	0.69	0.364				3.87-2								1.86+0
239.7	12.476	34.956	26.47	0.68	0.365				3.32-2								9.12-1

Spectral Radiometer Data File : DISCO 6 UP CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STA 6 2 DEG S 5-MAR-84 1200 UP CAST
 Lat. 2.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	418 nm	441 nm	465 nm	488 nm	520 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR
M	deg C	ppt	&-T	V.	Atten												
1.1	26.325	34.917	22.88	1.02	0.446	2.50+2	2.34+2	2.77+2	2.43+2	2.38+2	2.39+2	2.29+2	1.84+2	1.69+2	1.49+2	1.24+2	5.96+4
6.8	26.187	34.901	22.91	1.24	0.445	2.14+2	2.02+2	2.39+2	2.10+2	1.88+2	1.84+2	1.63+2	9.83+1	4.11+1	1.99+1	1.87+1	3.86+4
11.0	26.126	34.912	22.93	1.49	0.453	1.82+2	1.75+2	2.06+2	1.82+2	1.58+2	1.43+2	1.18+2	5.54+1	1.11+1	3.06+8	1.13+0	2.95+4
15.9	26.103	34.908	22.94	1.88	0.452	1.63+2	1.49+2	1.77+2	1.58+2	1.14+2	1.06+2	7.98+1	2.62+1	2.10+0	3.71-1	1.26-1	2.31+4
20.9	26.091	34.904	22.94	2.03	0.454	1.37+2	1.28+2	1.54+2	1.38+2	9.37+1	8.44+1	5.98+1	1.61+1	6.47-1	1.39-1	6.52-2	1.92+4
25.9	26.084	34.908	22.94	2.21	0.458	1.16+2	1.11+2	1.34+2	1.21+2	7.51+1	6.54+1	4.28+1	9.84+0	1.82-1	9.67-2	5.57-2	1.59+4
30.8	26.082	34.908	22.94	2.46	0.458	9.88+1	9.42+1	1.14+2	1.04+2	5.96+1	5.06+1	3.89+1	5.12+0	7.29-2	8.15-2	4.85-2	1.32+4
35.8	26.078	34.905	22.94	2.81	0.459	8.37+1	8.02+1	9.78+1	8.97+1	4.69+1	3.86+1	2.19+1	2.83+0	3.89-2	7.37-2	4.31-2	1.09+4
40.8	26.077	34.912	22.95	2.57	0.448	7.06+1	6.76+1	8.32+1	7.69+1	3.68+1	2.96+1	1.56+1	1.64+0	2.55-2	6.36-2	3.85-2	9.01+3
45.7	26.066	34.909	22.95	2.81	0.456	5.86+1	5.67+1	7.05+1	6.58+1	2.93+1	2.38+1	1.14+1	1.01+0		5.64-2	3.35-2	7.47+3
50.8	26.066	34.904	22.95	2.78	0.443	4.86+1	4.74+1	5.95+1	5.60+1	2.29+1	1.75+1	7.67+0	5.92-1		4.81-2	2.83-2	6.15+3
55.7	26.068	34.911	22.95	2.94	0.441	4.07+1	3.99+1	5.03+1	4.77+1	1.81+1	1.34+1	5.38+0	3.76-1		4.15-2	2.58-2	5.10+3
60.7	26.058	34.902	22.95	3.25	0.438	3.39+1	3.32+1	4.23+1	4.05+1	1.42+1	9.96+0	3.79+0	2.39-1		3.57-2	2.38-2	4.21+3
65.6	26.040	34.909	22.96	3.38	0.435	2.81+1	2.77+1	3.55+1	3.43+1	1.11+1	7.30+0	2.65+0	1.54-1		3.05-2		3.48+3
70.6	26.001	34.898	22.96	3.56	0.432	2.32+1	2.30+1	2.98+1	2.90+1	8.61+0	5.48+0	1.86+0	1.02-1		2.72-2		2.87+3
75.6	25.946	34.908	22.98	3.48	0.423	1.91+1	1.91+1	2.49+1	2.45+1	6.58+0	4.13+0	1.31+0	7.29-2		2.37-2		2.37+3
80.6	25.844	34.877	23.08	3.59	0.418	1.47+1	1.60+1	2.09+1	2.07+1	4.98+0	3.11+0	9.35-1	5.14-2		1.93-2		1.94+3
85.5	25.422	35.267	23.42	3.48	0.418	1.19+1	1.31+1	1.74+1	1.74+1	3.86+0	2.34+0	6.68-1	3.94-2				1.60+3
90.4	24.329	35.411	23.86	3.45	0.408	9.28+0	1.07+1	1.44+1	1.45+1	2.97+0	1.76+0	4.66-1	2.62-2				1.30+3
95.5	23.497	35.426	24.86	3.32	0.407	7.14+0	8.05+0	1.17+1	1.20+1	2.28+0	1.31+0	3.31-1					1.03+3
100.5	22.908	35.448	24.31	3.27	0.403	5.38+0	6.30+0	9.48+0	9.86+0	1.72+0	9.53-1	2.23-1					8.28+2
105.3	21.435	35.484	24.75	3.18	0.397	4.11+0	5.05+0	7.33+0	7.97+0	1.34+0	7.21-1	1.63-1					6.47+2
110.4	20.168	35.365	25.00	3.14	0.398	3.04+0	3.95+0	5.91+0	6.36+0	1.04+0	5.46-1	1.13-1					5.10+2
115.4	18.278	35.258	25.48	2.84	0.397	2.15+0	2.98+0	4.46+0	5.05+0	7.75-1	3.96-1	8.12-2					3.92+2
120.3	16.997	35.191	25.66	2.22	0.393	1.48+0	2.22+0	3.58+0	4.01+0	5.98-1	2.94-1	5.63-2					3.81+2
125.4	16.123	35.147	25.84	1.78	0.389	1.08+0	1.65+0	2.79+0	3.20+0	4.43-1	2.15-1	3.98-2					2.31+2
130.3	15.161	35.108	26.02	1.68	0.386	6.85-1	1.25+0	2.21+0	2.57+0	3.38-1	1.57-1						1.79+2
135.3	15.023	35.083	26.03	1.38	0.383	4.68-1	9.39-1	1.75+0	2.07+0	2.52-1	1.09-1						1.48+2
140.2	14.231	35.018	26.15	1.22	0.381	3.14-1	7.06-1	1.39+0	1.68+0	1.96-1	8.96-2						1.10+2
145.1	13.692	34.969	26.23	1.03	0.388	2.12-1	5.33-1	1.11+0	1.37+0	1.48-1	6.75-2						8.69+1
150.1	13.536	34.958	26.25	0.98	0.378	1.41-1	3.99-1	6.77-1	1.12+0	1.11-1	5.38-2						6.84+1
155.0	13.406	34.951	26.28	0.88	0.376	1.03-1	3.09-1	7.08-1	9.16-1	8.76-2	4.43-2						5.51+1
160.2	13.325	34.944	26.29	0.88	0.374	7.35-2	2.34-1	5.73-1	7.57-1	6.64-2							4.36+1
165.2	13.195	34.938	26.30	0.67	0.373			1.77-1	4.61-1	6.31-1	5.89-2						3.44+1
170.0	13.079	34.928	26.32	0.66	0.370			1.43-1	3.77-1	5.26-1	4.34-2						2.85+1
175.0	13.019	34.916	26.33	0.62	0.373			1.95-1	3.09-1	4.44-1							2.23+1
180.0	12.961	34.915	26.34	0.58	0.370			6.07-2	2.4E-1	3.74-1							1.63+1
184.9	12.941	34.913	26.34	0.59	0.369			6.46-2	2.10-1	3.16-1							1.54+1
189.9	12.894	34.909	26.35	0.58	0.369			5.25-2	1.70-1	2.66-1							1.28+1
194.9	12.861	34.909	26.35	0.68	0.369				1.48-1	2.27-1							9.51+8
199.9	12.829	34.908	26.36	0.56	0.368				1.11-1	1.92-1							7.89+8
205.0	12.771	34.902	26.37	0.58	0.369				9.88-2	1.63-1							6.78+8
210.0	12.751	34.901	26.37	0.57	0.376				7.87-2	1.39-1							5.67+8
214.9	12.705	34.899	26.38	0.58	0.369				6.17-2	1.18-1							4.71+8
219.0	12.637	34.895	26.39	0.68	0.370					1.01-1							2.78+8
224.7	12.575	34.894	26.40	0.68	0.368					8.61-2							2.37+8
229.7	12.542	34.887	26.40	0.68	0.370					7.25-2							1.99+8
234.7	12.481	34.887	26.41	0.59	0.370												
239.7	12.467	34.886	26.41	0.68	0.370												

Spectral Radiometer Data File : DISCO 7 DN CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STA 7 6 DEG S 6-MAR-84 1330 L DN CAST
 Lat. 6.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	Irradiance $\text{W}/\text{cm}^2/\text{nm}$	- W/cm^2 -
M	deg C	ppt	&T	V.	Atten	418 nm 441 nm 465 nm 488 nm 520 nm 548 nm 568 nm 589 nm 625 nm 671 nm 694 nm	Σ IRR
1.0	29.598	35.194	22.02	1.88	0.536	2.56+2 2.44+2 2.88+2 2.53+2 2.47+2 2.49+2 2.39+2 1.94+2 1.82+2 1.64+2 1.38+2	6.27+4
6.0	29.391	35.303	22.17	0.59	0.412	2.38+2 2.23+2 2.58+2 2.24+2 1.93+2 1.87+2 1.65+2 9.71+1 4.04+1 1.96+1 1.04+1	4.05+4
11.0	29.192	35.338	22.26	0.71	0.417	2.81+2 1.92+2 2.24+2 1.97+2 1.56+2 1.48+2 1.22+2 5.44+1 1.04+1 2.78+0 9.70+1	3.13+4
15.0	29.168	35.318	22.25	0.83	0.420	1.81+2 1.78+2 1.97+2 1.73+2 1.21+2 1.12+2 8.49+1 2.85+1 2.34+0 4.03+1 1.20+1	2.54+4
20.0	29.157	35.314	22.25	0.92	0.419	1.60+2 1.51+2 1.74+2 1.53+2 9.71+1 8.63+1 6.04+1 1.56+1 5.70+1 1.07+1 4.51+2	2.12+4
25.0	29.149	35.316	22.26	0.97	0.418	1.45+2 1.34+2 1.55+2 1.36+2 7.69+1 6.68+1 4.34+1 8.67+0 1.82+1 6.77+2 3.59+2	1.88+4
30.0	29.110	35.304	22.26	1.07	0.421	1.24+2 1.18+2 1.37+2 1.21+2 6.25+1 5.25+1 3.16+1 4.94+0 7.24+2 5.72+2 3.12+2	1.53+4
35.0	29.010	35.258	22.26	1.17	0.426	1.13+2 1.05+2 1.21+2 1.06+2 4.85+1 3.91+1 2.15+1 2.58+0 5.10+2 5.81+2 2.85+2	1.31+4
40.0	28.894	35.267	22.31	1.16	0.421	9.26+1 8.88+1 1.04+2 9.21+1 3.91+1 3.89+1 1.68+1 1.59+8 3.91+2 4.68+2 2.44+2	1.89+4
45.0	28.848	35.283	22.33	1.21	0.416	7.82+1 7.53+1 8.89+1 7.95+1 3.85+1 2.35+1 1.12+1 9.37+1 3.86+2 3.93+2	9.13+3
50.0	28.842	35.284	22.34	1.29	0.416	6.55+1 6.39+1 7.68+1 6.83+1 2.39+1 1.78+1 7.51+0 5.64+1 2.58+2 3.55+2	7.62+3
55.0	28.825	35.288	22.35	1.42	0.415	5.36+1 5.33+1 6.42+1 5.82+1 1.87+1 1.36+1 5.31+8 3.59+1 2.42+2 3.32+2	6.31+3
60.0	28.734	35.292	22.38	1.62	0.421	4.34+1 4.48+1 5.36+1 4.92+1 1.44+1 9.85+8 3.63+0 2.29+1	2.97+2
65.0	28.608	35.306	22.43	2.17	0.425	3.46+1 3.55+1 4.42+1 4.10+1 1.11+1 7.05+8 2.58+8 1.56+1	3.36+2
70.0	28.398	35.294	22.49	3.65	0.431	2.67+1 2.77+1 3.54+1 3.36+1 8.41+8 5.32+8 1.88+8 1.12+1	4.41+2
75.0	27.761	35.354	22.75	4.99	0.433	2.86+1 2.14+1 2.80+1 2.72+1 6.23+8 3.93+8 1.27+8 8.37+2	4.20+2
80.0	27.208	35.277	22.87	5.43	0.429	1.46+1 1.64+1 2.28+1 2.18+1 4.66+8 2.87+8 8.68+1 5.78+2	3.48+2
85.0	27.114	35.311	22.92	5.48	0.424	1.89+1 1.25+1 1.72+1 1.74+1 3.50+8 2.10+8 6.11+1 4.38+2	2.70+2
90.0	26.952	35.396	23.04	5.22	0.419	8.87+0 9.24+8 1.33+1 1.38+1 2.63+8 1.53+0 4.32+1 3.47+2	2.21+2
95.0	26.753	35.581	23.18	4.83	0.412	5.86+8 6.67+8 1.02+1 1.08+1 1.93+8 1.09+8 2.93+1 2.93+2	8.92+2
100.0	26.342	35.574	23.37	4.59	0.485	4.38+8 5.86+8 7.51+8 8.48+8 1.46+8 7.97+1 2.10+1	6.72+2
105.0	25.902	35.628	23.54	4.26	0.482	3.18+8 3.88+8 5.93+8 6.52+8 1.11+8 5.91+1 1.57+1	5.19+2
110.0	25.815	35.767	23.68	3.68	0.399	2.38+8 2.92+8 4.58+8 5.12+8 8.36+1 4.18+1 1.08+1	3.97+2
115.0	25.516	35.905	23.87	3.21	0.396	1.69+8 2.24+8 3.59+8 4.87+8 6.33+1 3.88+1 8.57+2	3.89+2
120.0	24.452	36.088	24.34	2.43	0.387	1.25+8 1.75+8 2.87+8 3.28+8 4.73+1 2.14+1 6.48+2	2.44+2
125.0	24.010	36.171	24.53	2.82	0.386	9.48+1 1.39+8 2.33+8 2.68+8 3.61+1 1.54+1 5.17+2	1.95+2
130.0	23.208	35.988	24.56	1.78	0.381	7.88+1 1.11+8 1.91+8 2.21+8 2.74+1 1.85+1	1.57+2
135.0	22.467	35.986	24.78	1.47	0.376	5.32+1 8.99+1 1.58+8 1.84+8 2.89+1 7.43+2	1.27+2
140.0	21.468	35.786	24.97	1.28	0.374	3.96+1 7.31+1 1.32+8 1.54+8 1.66+1 5.87+2	1.05+2
145.0	21.158	35.800	25.06	1.23	0.373	3.86+1 5.93+1 1.10+8 1.29+8 1.24+1	8.55+1
150.0	20.734	35.538	24.97	1.18	0.369	2.17+1 4.86+1 9.21+1 1.09+8 9.76+2	7.09+1
155.0	20.071	35.528	25.15	0.99	0.367	1.63+1 4.01+1 7.79+1 9.19+1 7.58+2	5.91+1
160.0	19.339	35.462	25.29	0.91	0.365	1.33+1 3.26+1 6.51+1 7.79+1 5.77+2	4.92+1
165.0	18.625	35.291	25.34	0.83	0.363	9.46+2 2.62+1 5.48+1 6.62+1 4.35+2	4.07+1
170.0	17.995	35.412	25.59	0.77	0.362	7.28+2 2.17+1 4.63+1 5.64+1 3.76+2	3.45+1
175.0	17.605	35.247	25.56	0.73	0.362	1.88+1 3.83+1 4.82+1	2.72+1
180.0	17.357	35.272	25.64	0.68	0.361	1.47+1 3.29+1 4.12+1	2.31+1
185.0	16.929	34.975	25.52	0.63	0.361	1.17+1 2.78+1 3.53+1	1.95+1
189.9	16.000	35.121	25.84	0.68	0.360	1.02+1 2.34+1 3.82+1	1.66+1
195.0	15.701	35.054	25.86	0.61	0.361	8.37+2 1.98+1 2.56+1	1.46+1
199.8	15.289	35.033	25.94	0.59	0.360	7.12+2 1.63+1 2.19+1	1.18+1
204.9	14.928	35.042	26.82	0.59	0.360	5.63+2 1.42+1 1.86+1	9.99+0
210.0	14.112	34.918	26.10	0.58	0.358	4.83+2 1.18+1 1.59+1	8.47+0
214.9	13.801	34.942	26.19	0.56	0.359	1.08+1 1.35+1	6.08+0
219.8	13.490	34.917	26.23	0.54	0.359	8.44+2 1.14+1	5.11+0
224.7	13.131	34.891	26.28	0.52	0.358	6.96+2 9.82+2	4.34+0
229.7	13.028	34.894	26.31	0.52	0.357	5.83+2 8.36+2	3.67+0
234.7	12.773	34.879	26.35	0.54	0.358	4.79+2 7.18+2	3.08+0
239.7	12.320	34.671	26.43	0.56	0.357	4.16+2 5.96+2	2.66+0

Spectral Radiometer Data File : DISCO 7 UP CAST.MDAT.S

page 1

Cast Label : RP-9-D-84 LEG 2 STA 7 6 DEG S 6-MAR-84 1330 L UP CAST
 Lat. 6.0000S Long. 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. a-T	Fluor V.	Beam Atten	Irradiance $\mu\text{W}/\text{cm}^2/\text{nM}$										ΣIRR	
						418 nM	441 nM	465 nM	488 nM	528 nM	548 nM	560 nM	589 nM	625 nM	671 nM	694 nM	
1.0	29.451	35.324	22.16	6.09	0.458	2.58+1	1.89+1	1.83+1	1.40+1	5.75+0	4.51+0	2.98+0	1.25+0	5.47-1	3.44-1	2.32-1	2.13+3
5.9	29.397	35.338	22.19	0.67	0.422	2.34+1	1.72+1	1.68+1	1.30+1	5.37+0	4.06+0	2.55+0	8.39-1	1.64-1	6.72-2	3.25-2	1.91+3
11.1	29.219	35.326	22.24	0.72	0.419	2.13+1	1.57+1	1.54+1	1.20+1	4.43+0	3.31+0	1.92+0	4.78-1	4.91-2	2.62-2		1.70+3
15.9	29.191	35.316	22.24	0.83	0.422	1.93+1	1.43+1	1.42+1	1.10+1	3.77+0	2.74+0	1.48+0	2.96-1	2.13-2	1.91-2		1.53+3
20.9	29.177	35.325	22.26	0.91	0.422	1.73+1	1.29+1	1.29+1	1.01+1	3.16+0	2.23+0	1.12+0	1.92-1		1.84-2		1.36+3
25.9	29.148	35.315	22.26	1.00	0.423	1.52+1	1.15+1	1.15+1	9.15+0	2.64+0	1.82+0	8.65-1	1.34-1		1.75-2		1.21+3
30.9	29.097	35.314	22.27	1.11	0.423	1.32+1	1.01+1	1.02+1	8.16+0	2.22+0	1.49+0	6.72-1	9.96-2		1.64-2		1.05+3
35.8	28.984	35.297	22.30	1.21	0.427	1.03+1	8.53+0	8.84+0	7.17+0	1.79+0	1.17+0	5.83-1	7.38-2		1.51-2		8.84+2
40.8	28.886	35.284	22.32	1.20	0.424	8.68+0	7.47+0	7.91+0	6.26+0	1.46+0	9.33-1	3.77-1	5.30-2				7.66+2
45.8	28.847	35.281	22.33	1.25	0.425	7.05+0	5.94+0	6.69+0	5.45+0	1.18+0	7.36-1	2.88-1	4.12-2				6.33+2
50.7	28.829	35.281	22.34	1.41	0.421	5.93+0	5.09+0	5.77+0	4.72+0	9.98-1	6.16-1	2.32-1	3.89-2				5.42+2
55.7	28.799	35.263	22.34	1.73	0.421	4.78+0	4.18+0	4.71+0	3.98+0	7.93-1	4.72-1	1.73-1	2.34-2				4.44+2
60.7	28.678	35.273	22.38	2.26	0.426	3.64+0	3.26+0	3.77+0	3.26+0	6.17-1	3.64-1	1.31-1	2.10-2				3.52+2
65.6	28.522	35.293	22.45	3.74	0.424	2.64+0	2.43+0	2.91+0	2.59+0	4.68-1	2.76-1	9.00-2					2.67+2
70.5	28.250	35.219	22.48	5.00	0.443	1.98+0	1.75+0	2.20+0	2.02+0	3.58-1	2.87-1	7.15-2			1.54-2		2.00+2
75.5	27.644	35.261	22.71	5.44	0.448	1.36+0	1.27+0	1.64+0	1.56+0	2.69-1	1.55-1	5.32-2			1.32-2		1.49+2
80.6	27.154	35.282	22.89	5.31	0.441	9.85-1	9.26-1	1.23+0	1.21+0	2.82-1	1.10-1	4.82-2					1.11+2
85.5	27.014	35.328	22.96	5.11	0.434	7.89-1	6.88-1	9.24-1	9.38-1	1.49-1	8.18-2	2.79-2					8.32+1
90.5	26.982	35.436	23.08	4.86	0.429	5.00-1	4.90-1	6.81-1	7.10-1	1.10-1	6.47-2						6.89+1
95.6	26.546	35.558	23.29	4.52	0.418	3.47-1	3.52-1	5.07-1	5.39-1	7.78-2	4.48-2						4.47+1
100.4	26.049	35.552	23.44	4.06	0.415	2.34-1	2.55-1	3.75-1	4.11-1	5.47-2	3.49-2						3.29+1
105.4	25.670	35.641	23.63	3.81	0.413	1.67-1	1.88-1	2.86-1	3.19-1	4.82-2							2.43+1
110.4	25.763	35.766	23.69	3.27	0.412	1.20-1	1.44-1	2.26-1	2.54-1	2.97-2							1.89+1
115.4	25.309	35.917	23.95	2.76	0.405	8.57-2	1.14-1	1.81-1	2.06-1								1.44+1
120.3	24.391	36.018	24.30	2.23	0.398	5.82-2	9.22-2	1.47-1	1.67-1								1.15+1
125.5	23.788	36.032	24.49	1.77	0.392					7.26-2	1.18-1	1.35-1					8.50+0
130.3	22.884	35.904	24.66	1.57	0.386					5.86-2	9.54-2	1.10-1					6.89+0
135.2	21.937	35.740	24.80	1.34	0.388					4.63-2	7.89-2	9.13-2					5.64+0
140.1	21.239	35.774	25.02	1.22	0.377					4.08-2	6.76-2	7.63-2					4.81+0
145.2	20.747	35.647	25.06	1.11	0.373					3.36-2	5.88-2	6.39-2					4.04+0
150.2	20.057	35.528	25.15	0.97	0.370						4.49-2	5.34-2					2.52+0
155.0	19.215	35.454	25.32	0.91	0.369					3.33-2	4.46-2						2.01+0
160.2	18.497	35.281	25.37	0.88	0.366					3.06-2	3.77-2						1.74+0
165.2	17.837	35.261	25.52	0.75	0.365						3.21-2						6.82-1
170.1	17.398	35.248	25.61	0.69	0.364						2.74-2						7.54-1
174.9	17.275	35.169	25.58	0.67	0.362												
180.0	16.064	35.082	25.88	0.63	0.364												
184.9	15.744	35.066	25.86	0.63	0.363												
189.9	15.461	35.026	25.69	0.63	0.363												
194.9	14.889	35.007	26.00	0.63	0.363												
199.9	14.099	34.922	26.11	0.61	0.362												
204.9	13.847	34.936	26.17	0.57	0.362												
210.0	13.573	34.921	26.22	0.55	0.362												
214.9	13.149	34.908	26.29	0.55	0.362												
219.9	13.024	34.908	26.32	0.55	0.362												
224.7	12.882	34.899	26.34	0.56	0.362												
229.7	12.603	34.879	26.38	0.56	0.362												
234.7	12.283	34.863	26.43	0.58	0.362												
239.7	12.223	34.864	26.44	0.58	0.362												

Cast Label : RP-9-D1-84 LEG 2 STA 8 10 DEG S 7-MAR-84 1400 L DN CAST
 Lat. 10.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR
M	deg C	ppt	&-T	V.	Atten												
1.0	38.414	33.062	28.14	1.62	0.495	2.31+2	2.18+2	2.54+2	2.22+2	2.14+2	2.15+2	2.06+2	1.64+2	1.54+2	1.38+2	1.14+2	5.43+4
6.0	38.151	35.406	21.99	0.55	0.396	2.05+2	1.98+2	2.27+2	1.96+2	1.70+2	1.65+2	1.46+2	0.58+1	3.47+1	1.67+1	0.57+0	3.55+4
10.9	38.026	35.407	22.03	0.54	0.397	1.96+2	1.89+2	2.08+2	1.75+2	1.35+2	1.24+2	1.08+2	4.56+1	8.10+0	2.17+0	7.33-1	2.82+4
15.9	38.006	35.406	22.04	0.58	0.397	1.77+2	1.67+2	1.86+2	1.58+2	1.07+2	9.62+1	7.19+1	2.34+1	1.69+0	2.77-1	8.52-2	2.34+4
20.9	38.001	35.408	22.04	0.63	0.397	1.69+2	1.57+2	1.72+2	1.45+2	8.63+1	7.53+1	5.18+1	1.29+1	4.42-1	8.31-2	3.88-2	2.04+4
25.8	29.890	35.434	22.10	0.57	0.394	1.60+2	1.48+2	1.61+2	1.34+2	7.01+1	5.89+1	3.73+1	7.20+0	1.43-1	5.25-2	3.18-2	1.82+4
30.8	29.698	35.466	22.19	0.54	0.391	1.47+2	1.37+2	1.48+2	1.23+2	5.79+1	4.71+1	2.77+1	4.12+0	6.89-2	4.25-2	2.68-2	1.62+4
35.9	29.553	35.458	22.22	0.61	0.393	1.34+2	1.25+2	1.34+2	1.11+2	4.66+1	3.67+1	2.08+1	2.36+0	5.09-2	4.86-2	2.51-2	1.42+4
40.8	29.249	35.500	22.36	0.70	0.395	1.26+2	1.16+2	1.22+2	9.99+1	3.66+1	2.77+1	1.39+1	1.32+0	4.33-2	4.27-2	2.64-2	1.26+4
45.7	28.868	35.545	22.53	0.76	0.397	1.08+2	1.02+2	1.09+2	8.93+1	3.08+1	2.28+1	9.99+0	8.34-1	3.61-2	3.79-2	2.35-2	1.18+4
50.8	28.648	35.558	22.61	0.92	0.397	9.46+1	9.85+1	9.63+1	7.88+1	2.37+1	1.68+1	6.82+0	5.17-1	3.29-2	3.86-2		9.53+3
55.7	28.256	35.567	22.74	1.04	0.397	7.76+1	7.69+1	8.31+1	6.86+1	1.98+1	1.32+1	4.94+0	3.35-1	2.65-2	3.57-2		8.85+3
60.7	27.955	35.621	22.88	1.27	0.408	6.35+1	6.47+1	7.10+1	5.92+1	1.51+1	9.82+0	3.53+0	2.28-1	2.22-2	3.57-2		6.74+3
65.6	27.652	35.624	22.99	1.68	0.409	5.19+1	5.43+1	6.05+1	5.06+1	1.17+1	7.06+0	2.43+0	1.54-1				5.62+3
70.5	27.515	35.622	23.03	2.11	0.414	4.25+1	4.54+1	5.11+1	4.32+1	8.99+0	5.29+0	1.71+0	1.13-1				4.68+3
75.5	27.375	35.553	23.02	2.49	0.413	3.46+1	3.76+1	4.31+1	3.67+1	6.78+0	3.94+0	1.22+0	8.48-2				3.88+3
80.5	27.180	35.603	23.12	2.89	0.417	2.81+1	3.10+1	3.61+1	3.11+1	5.32+0	3.02+0	8.76-1	6.36-2				3.22+3
85.6	27.007	35.692	23.24	3.11	0.419	2.27+1	2.55+1	3.01+1	2.62+1	4.15+0	2.28+0	6.41-1	4.77-2				2.65+3
90.5	26.861	35.713	23.31	3.38	0.418	1.84+1	2.09+1	2.49+1	2.20+1	3.23+0	1.72+0	4.61-1	3.08-2				2.18+3
95.5	26.768	35.814	23.41	3.44	0.415	1.36+1	1.69+1	2.05+1	1.83+1	2.52+0	1.38+0	3.38-1	3.32-2				1.76+3
100.4	26.677	35.897	23.58	3.59	0.414	1.06+1	1.35+1	1.67+1	1.51+1	1.89+0	9.30-1	2.36-1					1.42+3
105.4	26.679	36.018	23.59	3.47	0.409	8.02+0	1.07+1	1.34+1	1.24+1	1.45+0	6.93-1	1.72-1					1.13+3
110.4	26.683	36.061	23.63	3.51	0.418	6.85+0	7.87+0	1.08+1	1.00+1	1.10+0	5.07-1	1.24-1					8.81+2
115.3	26.593	36.066	23.66	3.68	0.408	4.56+0	6.13+0	8.19+0	8.04+0	8.27-1	3.67-1	9.38-2					6.84+2
120.4	26.337	36.035	23.72	3.63	0.408	3.58+0	4.87+0	6.59+0	6.48+0	6.37-1	2.76-1	7.28-2					5.43+2
125.4	25.773	36.026	23.89	3.68	0.394	2.57+0	3.70+0	5.15+0	5.10+0	4.96-1	2.86-1	5.48-2					4.21+2
130.3	25.483	36.125	24.08	3.43	0.392	1.86+0	2.82+0	4.04+0	4.87+0	3.79-1	1.47-1	4.55-2					3.27+2
135.2	25.219	36.180	24.17	3.35	0.398	1.37+0	2.17+0	3.19+0	3.27+0	2.84-1	1.00-1						2.55+2
140.1	24.910	36.157	24.25	3.04	0.388	1.01+0	1.68+0	2.53+0	2.64+0	2.23-1	7.42-2						2.01+2
145.2	24.486	36.224	24.43	2.61	0.387	7.52-1	1.31+0	2.02+0	2.13+0	1.73-1	5.57-2						1.59+2
150.1	24.408	36.238	24.46	2.45	0.386	5.61-1	1.03+0	1.62+0	1.72+0	1.21-1							1.26+2
155.0	24.113	36.282	24.52	2.87	0.382	4.29-1	8.18-1	1.32+0	1.41+0	9.95-2							1.01+2
160.2	23.714	36.296	24.71	1.68	0.376	3.27-1	6.64-1	1.08+0	1.17+0	7.98-2							8.38+1
165.1	23.292	36.128	24.71	1.25	0.372	2.49-1	5.47-1	9.86-1	9.82-1	6.15-2							6.88+1
170.1	22.987	36.068	24.75	1.06	0.368	1.94-1	4.58-1	7.71-1	8.32-1	5.31-2							5.88+1
175.0	22.652	36.054	24.84	0.93	0.368	1.58-1	3.85-1	6.55-1	7.10-1	4.16-2							4.96+1
180.0	22.198	35.929	24.87	0.77	0.364	1.25-1	3.21-1	5.53-1	6.10-1								4.85+1
185.0	21.755	35.895	24.97	0.68	0.362	1.05-1	2.77-1	4.83-1	5.26-1								3.58+1
189.9	21.588	35.815	24.96	0.62	0.361	7.24-2	2.33-1	4.15-1	4.55-1								2.98+1
194.9	21.344	35.858	25.06	0.68	0.361		1.94-1	3.55-1	3.94-1								2.45+1
199.8	21.877	35.793	25.08	0.53	0.362		1.66-1	3.08-1	3.40-1								2.11+1
204.8	20.878	35.768	25.12	0.51	0.361		1.43-1	2.63-1	2.95-1								1.82+1
209.9	20.448	35.639	25.13	0.46	0.368		1.21-1	2.33-1	2.56-1								1.58+1
214.9	20.868	35.658	25.25	0.44	0.368		1.06-1	1.94-1	2.21-1								1.34+1
219.7	19.813	35.623	25.29	0.44	0.358		8.38-2	1.64-1	1.89-1								1.14+1
224.7	19.181	35.438	25.33	0.41	0.359		7.47-2	1.42-1	1.62-1								9.85+0
229.7	17.827	35.338	25.57	0.41	0.358		6.29-2	1.21-1	1.38-1								8.39+0
234.7	17.356	35.098	25.58	0.39	0.358		4.57-2	9.51-2	1.18-1								6.73+0
239.7	16.548	35.213	25.70	0.39	0.359		8.39-2	9.98-2									4.72+0

Spectral Radiometer Data File : DISCO 8 UP CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STA B 10 DEG S 7-MAR-84 1400 L UP CAST
 Lat. 18.00005 Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR
M	deg C	psu	&-T	V.	Atten												
1.1	38.358	35.394	21.91	8.51	0.408	1.60+2	1.58+2	1.70+2	1.47+2	1.39+2	1.39+2	1.32+2	1.03+2	9.31+1	8.10+1	6.51+1	3.50+4
5.9	38.346	35.413	21.93	8.58	0.398	1.41+2	1.31+2	1.48+2	1.27+2	1.07+2	1.04+2	9.10+1	5.20+1	2.85+1	9.57+0	4.81+0	2.28+4
10.9	38.064	35.409	22.02	8.59	0.409	1.27+2	1.19+2	1.32+2	1.11+2	8.31+1	7.66+1	6.13+1	2.62+1	4.29+0	1.04+0	3.47+1	1.76+4
15.9	38.008	35.408	22.04	8.63	0.409	1.09+2	1.02+2	1.14+2	9.70+1	6.46+1	5.85+1	4.35+1	1.38+1	9.57-1	1.52-1	4.96-2	1.42+4
20.9	29.994	35.409	22.04	8.69	0.408	9.96+1	9.22+1	1.02+2	8.62+1	5.03+1	4.39+1	2.99+1	7.15+0	2.19-1	4.10-2	2.33-2	1.20+4
25.8	29.953	35.409	22.06	8.68	0.403	9.49+1	8.74+1	9.38+1	7.73+1	4.81+1	3.33+1	2.89+1	4.01+0	7.30-2	3.86-2	2.20-2	1.06+4
30.9	29.788	35.443	22.14	8.68	0.397	8.37+1	7.83+1	8.46+1	7.01+1	3.27+1	2.65+1	1.54+1	2.22+0	3.25-2	2.11-2	1.69-2	9.20+3
35.8	29.634	35.478	22.22	8.68	0.397	7.89+1	7.22+1	7.70+1	6.34+1	2.59+1	2.04+1	1.10+1	1.26+0	2.15-2	1.93-2	1.46-2	8.15+3
40.9	29.433	35.479	22.29	8.76	0.398	7.08+1	6.68+1	6.98+1	5.71+1	2.09+1	1.58+1	7.84+0	7.38-1	1.86-2	1.86-2	1.45-2	7.20+3
45.8	29.177	35.511	22.48	8.78	0.405	6.38+1	5.95+1	6.25+1	5.07+1	1.66+1	1.21+1	5.38+0	4.43+1	1.38-2	1.76-2	1.36-2	6.31+3
50.7	28.751	35.542	22.56	8.94	0.487	5.42+1	5.17+1	5.46+1	4.47+1	1.33+1	9.41+0	3.79+0	2.86-1		1.56-2		5.41+3
55.7	28.496	35.564	22.66	1.04	0.418	4.66+1	4.58+1	4.78+1	3.91+1	1.06+1	7.29+0	2.78+0	1.82-1		1.47-2		4.65+3
60.7	28.126	35.608	22.82	1.30	0.489	4.08+1	3.92+1	4.17+1	3.48+1	8.16+0	5.16+0	1.88+0	1.17-1		1.48-2		3.98+3
65.6	27.787	35.629	22.95	1.67	0.418	3.24+1	3.28+1	3.56+1	2.94+1	6.57+0	3.93+0	1.32+0	8.24-2		1.58-2		3.33+3
70.5	27.542	35.623	23.02	2.23	0.419	2.62+1	2.75+1	3.83+1	2.52+1	5.09+0	2.94+0	9.26-1	6.27-2		1.67-2		2.79+3
75.6	27.474	35.628	23.04	2.61	0.423	2.16+1	2.30+1	2.57+1	2.15+1	3.92+0	2.26+0	6.82-1	4.83-2		1.65-2		2.33+3
80.5	27.141	35.642	23.16	3.18	0.429	1.76+1	1.89+1	2.15+1	1.82+1	2.98+0	1.68+0	4.78-1	3.68-2		1.63-2		1.92+3
85.5	26.926	35.701	23.28	3.32	0.428	1.40+1	1.54+1	1.78+1	1.53+1	2.36+0	1.38+0	3.52-1	2.69-2		1.56-2		1.58+3
90.4	26.769	35.762	23.37	3.37	0.425	1.12+1	1.25+1	1.46+1	1.27+1	1.08+0	9.68-1	2.49-1	2.83-2		1.48-2		1.29+3
95.5	26.673	35.885	23.50	3.57	0.423	8.24+0	1.00+1	1.19+1	1.06+1	1.40+0	8.23-1	1.79-1	1.81-2		1.16-2		1.03+3
100.4	26.652	35.969	23.57	3.54	0.419	6.31+0	7.98+0	9.65+0	8.68+0	1.06+0	5.26-1	1.26-1					6.24+2
105.4	26.683	36.058	23.62	3.57	0.418	4.81+0	6.32+0	7.77+0	7.09+0	8.11-1	3.97-1	9.19-2					6.57+2
110.4	26.525	36.074	23.69	3.61	0.415	3.66+0	4.66+0	6.23+0	5.72+0	6.05-1	2.98-1	6.54-2					5.12+2
115.4	26.227	36.081	23.79	3.53	0.489	2.75+0	3.62+0	4.81+0	4.58+0	4.63-1	2.16-1	4.68-2					3.99+2
120.3	25.948	36.070	23.87	3.43	0.486	2.10+0	2.86+0	3.80+0	3.65+0	3.57-1	1.62-1	3.32-2					3.14+2
125.3	25.464	36.130	24.86	3.39	0.397	1.54+0	2.18+0	2.97+0	2.91+0	2.71-1	1.19-1	2.71-2					2.44+2
130.3	25.322	36.141	24.11	3.12	0.397	1.12+0	1.67+0	2.33+0	2.32+0	2.10-1	8.63-2						1.89+2
135.1	24.988	36.189	24.25	2.85	0.397	8.30-1	1.28+0	1.84+0	1.86+0	1.59-1	6.64-2						1.48+2
140.1	24.529	36.238	24.42	2.52	0.397	6.13-1	9.91-1	1.46+0	1.49+0	1.21-1	5.29-2						1.16+2
145.1	24.417	36.232	24.46	2.26	0.397	4.62-1	7.75-1	1.16+0	1.21+0	9.47-2	3.98-2						9.22+1
150.1	24.278	36.228	24.58	1.83	0.392	3.50-1	6.89-1	9.31-1	9.00-1	7.14-2	2.65-2						7.34+1
155.8	24.836	36.223	24.56	1.52	0.388	2.57-1	4.85-1	7.57-1	8.01-1	5.66-2							5.86+1
160.2	23.557	36.193	24.68	1.01	0.382	2.04-1	3.94-1	6.23-1	6.62-1	4.16-2							4.79+1
165.1	23.158	36.137	24.76	0.97	0.378	1.68-1	3.25-1	5.22-1	5.54-1	3.39-2							3.99+1
170.1	22.865	36.098	24.81	0.83	0.375	1.27-1	2.76-1	4.36-1	4.69-1	2.75-2							3.33+1
175.8	22.565	36.055	24.86	0.69	0.373	1.83-1	2.26-1	3.69-1	4.00-1	2.14-2							2.66+1
180.1	22.061	35.972	24.94	0.64	0.370	6.09-2	1.93-1	3.17-1	3.43-1								2.34+1
184.9	21.659	35.918	25.01	0.59	0.368	6.06-2	1.62-1	2.73-1	2.95-1								1.99+1
189.9	21.378	35.859	25.05	0.55	0.368	4.79-2	1.33-1	2.31-1	2.53-1								1.68+1
195.8	21.303	35.846	25.06	0.53	0.367		1.14-1	1.99-1	2.17-1								1.38+1
199.9	21.073	35.889	25.09	0.50	0.368		9.64-2	1.68-1	1.86-1								1.17+1
204.6	20.691	35.746	25.15	0.48	0.365		8.33-2	1.45-1	1.59-1								1.01+1
210.0	20.248	35.688	25.21	0.44	0.364		6.66-2	1.28-1	1.37-1								8.42+0
214.9	19.877	35.616	25.27	0.43	0.362		5.57-2	1.04-1	1.17-1								7.21+0
219.8	19.465	35.538	25.31	0.41	0.362		4.77-2	9.22-2	1.00-1								6.23+0
224.7	18.328	35.367	25.48	0.39	0.362		3.83-2	7.55-2	8.56-2								5.18+0
229.7	17.518	35.289	25.62	0.39	0.368		3.29-2	6.28-2	7.33-2								4.48+0
234.7	16.571	35.190	25.76	0.39	0.359		3.84-2	5.53-2	6.31-2								3.87+0
239.7	16.259	35.149	25.81	0.40	0.359		4.21-2	5.58-2									2.56+0

Spectral Radiometer Data File : DISCO 9 DN CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1318 L DN CAST
 Lat. 15.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	418 nm	441 nm	465 nm	488 nm	528 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Σ IRR	$\text{W/cm}^2\text{-nm}$
M	deg C	ppt	&T	V.	Atten													W/cm^2
1.0	38.861	29.986	17.98	2.14	1.114	2.82+2	1.98+2	2.19+2	1.98+2	1.83+2	1.84+2	1.76+2	1.37+2	1.38+2	1.16+2	9.33+1	4.64+4	
6.0	38.011	35.548	22.14	0.44	0.409	1.89+2	1.74+2	1.96+2	1.69+2	1.42+2	1.38+2	1.21+2	6.91+1	2.83+1	1.34+1	6.82+0	3.03+4	
10.9	29.939	35.535	22.16	0.43	0.412	1.78+2	1.61+2	1.88+2	1.52+2	1.13+2	1.08+2	8.61+1	3.68+1	6.70+0	1.70+0	5.85+1	2.43+4	
15.9	29.913	35.538	22.17	0.45	0.412	1.74+2	1.54+2	1.68+2	1.48+2	9.07+1	8.13+1	6.03+1	1.93+1	1.44+0	2.39+1	7.67+2	2.09+4	
20.8	29.911	35.539	22.17	0.47	0.411	1.63+2	1.45+2	1.57+2	1.38+2	7.54+1	6.53+1	4.47+1	1.11+1	3.77+1	6.12+2	3.11+2	1.85+4	
25.9	29.906	35.542	22.17	0.48	0.412	1.56+2	1.38+2	1.48+2	1.21+2	6.28+1	5.17+1	3.25+1	6.08+0	1.20+1	3.85+2	2.55+2	1.67+4	
30.8	29.901	35.541	22.17	0.51	0.412	1.46+2	1.29+2	1.37+2	1.12+2	5.13+1	4.15+1	2.43+1	3.58+0	6.19+2	3.25+2		1.50+4	
35.8	29.785	35.578	22.24	0.59	0.428	1.39+2	1.28+2	1.26+2	1.01+2	4.86+1	3.14+1	1.69+1	1.94+0	4.29+2	3.24+2		1.34+4	
40.8	29.456	35.564	22.27	0.86	0.433	1.25+2	1.09+2	1.13+2	9.11+1	3.31+1	2.49+1	1.21+1	1.17+0	3.58+2	3.12+2		1.18+4	
45.8	29.585	35.566	22.38	0.85	0.425	1.14+2	9.85+1	1.02+2	8.16+1	2.67+1	1.95+1	8.42+0	7.83+1	2.95+2	2.81+2		1.04+4	
50.8	29.437	35.598	22.37	0.84	0.423	1.03+2	8.91+1	9.28+1	7.31+1	2.18+1	1.55+1	6.17+0	4.65+1		2.68+2		9.26+3	
55.7	29.187	35.667	22.51	0.74	0.413	9.31+1	8.04+1	8.26+1	6.53+1	1.78+1	1.19+1	4.55+0	3.21+1		2.34+2		8.21+3	
60.6	28.942	35.775	22.67	0.68	0.418	8.39+1	7.27+1	7.41+1	5.82+1	1.42+1	8.76+0	3.19+0	2.18+1				7.27+3	
65.6	28.617	35.831	22.82	0.70	0.418	7.43+1	6.48+1	6.58+1	5.17+1	1.15+1	6.78+0	2.32+0	1.50+1				6.40+3	
70.5	28.032	36.038	23.17	0.82	0.412	6.51+1	5.73+1	5.81+1	4.56+1	9.05+0	5.23+0	1.68+0	1.06+1				5.59+3	
75.6	27.800	35.994	23.22	0.92	0.413	5.55+1	4.98+1	5.07+1	3.99+1	6.86+0	3.92+0	1.19+0	8.18+2				4.81+3	
80.5	27.539	36.034	23.33	0.99	0.411	4.68+1	4.28+1	4.39+1	3.47+1	5.36+0	2.94+0	8.43+1	6.29+2				4.11+3	
85.6	27.163	36.014	23.44	1.15	0.411	3.83+1	3.68+1	3.75+1	2.99+1	4.34+0	2.32+0	6.42+1	4.55+2				3.46+3	
90.5	26.948	36.063	23.56	1.27	0.418	3.11+1	3.08+1	3.18+1	2.57+1	3.45+0	1.79+0	4.77+1	3.56+2				2.98+3	
95.5	26.685	36.150	23.72	1.29	0.409	2.55+1	2.52+1	2.70+1	2.28+1	2.69+0	1.34+0	3.58+1	3.17+2				2.44+3	
100.4	26.448	36.135	23.75	1.36	0.487	1.94+1	2.18+1	2.29+1	1.88+1	2.12+0	1.82+0	2.55+1					2.81+3	
105.3	26.137	36.154	23.87	1.48	0.405	1.54+1	1.73+1	1.92+1	1.59+1	1.66+0	7.65+1	1.92+1					1.67+3	
110.4	25.958	36.289	23.97	1.54	0.484	1.19+1	1.48+1	1.59+1	1.34+1	1.28+0	5.72+1	1.44+1					1.36+3	
115.3	25.725	36.185	24.82	1.59	0.482	9.49+0	1.12+1	1.35+1	1.11+1	1.81+0	4.33+1	1.18+1					1.12+3	
120.3	25.553	36.183	24.87	1.63	0.488	7.18+0	8.56+0	8.66+1	9.17+0	7.79+1	3.26+1	8.86+2					8.76+2	
125.3	25.313	36.178	24.14	1.63	0.399	5.72+0	7.05+0	6.73+0	7.55+0	6.33+1	2.62+1	7.19+2					7.19+2	
130.3	24.998	36.172	24.23	1.76	0.397	4.36+0	5.58+0	7.09+0	6.21+0	4.82+1	1.77+1	4.96+2					5.76+2	
135.2	24.693	36.142	24.38	2.01	0.398	3.28+0	4.35+0	5.70+0	5.07+0	3.73+1	1.32+1						4.56+2	
140.1	24.539	36.158	24.36	2.11	0.398	2.44+0	3.39+0	4.55+0	4.11+0	2.94+1	9.54+2						3.60+2	
145.2	24.379	36.122	24.38	2.17	0.399	1.79+0	2.62+0	3.62+0	3.32+0	2.22+1	6.95+2						2.84+2	
150.1	24.047	36.168	24.51	2.10	0.397	1.33+0	2.05+0	2.98+0	2.69+0	1.74+1							2.24+2	
155.1	23.894	36.187	24.52	1.84	0.396	1.01+0	1.62+0	2.35+0	2.28+0	1.32+1							1.79+2	
160.1	23.718	36.189	24.57	1.70	0.394	7.65+1	1.30+0	1.91+0	1.81+0	1.10+1							1.45+2	
165.0	23.567	36.184	24.61	1.53	0.392	5.81+1	1.04+0	1.57+0	1.58+0	7.96+2							1.18+2	
170.0	23.398	36.071	24.64	1.42	0.390	4.58+1	6.45+1	1.30+0	1.25+0	6.02+2							9.66+1	
175.0	23.177	36.049	24.68	1.29	0.388	3.51+1	6.87+1	1.08+0	1.04+0	5.77+2							7.98+1	
180.0	23.089	36.036	24.70	1.25	0.386	2.66+1	5.64+1	8.96+1	8.73+1	4.76+2							6.59+1	
185.0	22.873	35.998	24.73	1.12	0.385	2.09+1	4.65+1	7.53+1	7.36+1								5.40+1	
189.9	22.604	35.972	24.79	0.90	0.363	1.72+1	3.85+1	6.33+1	6.24+1								4.53+1	
194.9	22.467	35.969	24.83	0.78	0.383	1.35+1	3.14+1	5.35+1	5.31+1								3.79+1	
199.8	22.418	35.961	24.84	0.72	0.362	1.06+1	2.62+1	4.51+1	4.52+1								3.19+1	
204.9	22.320	35.981	24.86	0.64	0.380					2.15+1	3.88+1	3.87+1						2.55+1
209.9	21.782	35.874	24.95	0.61	0.378					1.79+1	3.18+1	3.31+1						2.15+1
214.9	21.655	35.876	24.98	0.58	0.378					1.53+1	2.66+1	2.82+1						1.82+1
219.8	21.385	35.786	24.99	0.48	0.376					1.21+1	2.25+1	2.41+1						1.52+1
224.8	20.944	35.755	25.09	0.48	0.375					9.08+2	1.83+1	2.05+1						1.24+1
229.7	20.730	35.741	25.14	0.38	0.374					7.75+2	1.55+1	1.74+1						1.06+1
234.7	20.505	35.712	25.17	0.43	0.374					5.82+2	1.24+1	1.45+1						8.51+0
239.7	20.400	35.708	25.20	0.45	0.373					1.05+1	1.21+1						5.79+0	

Spectral Radiometer Data File : DISCO 9 UP CAST.MDAT.S

page 1

Cast Label : RP-9-D1-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1315 L UP CAST
 Lat. 15.0000S Long. 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &T	Fluor V.	Beam Atten	Irradiance $\text{W}/\text{cm}^2/\text{nM}$										ΣIRR	
						410 nM	441 nM	465 nM	488 nM	520 nM	540 nM	568 nM	589 nM	625 nM	671 nM	694 nM	
0.9	29.841	28.348	16.88	0.49	0.814	2.44+2	2.34+2	2.71+2	2.34+2	2.29+2	2.29+2	2.19+2	1.75+2	1.70+2	1.54+2	1.25+2	5.83+4
5.9	38.013	35.539	22.13	0.45	0.413	2.35+2	2.13+2	2.40+2	2.85+2	1.72+2	1.66+2	1.46+2	8.38+1	3.42+1	1.64+1	8.53+0	3.69+4
10.9	29.934	35.541	22.16	0.47	0.416	2.14+2	1.93+2	2.15+2	1.82+2	1.37+2	1.28+2	1.04+2	4.61+1	9.08+0	2.41+0	8.56-1	2.93+4
15.9	29.928	35.536	22.16	0.58	0.414	1.95+2	1.78+2	1.95+2	1.63+2	1.09+2	9.77+1	7.27+1	2.41+1	1.79+0	2.92-1	9.18-2	2.44+4
20.9	29.916	35.534	22.16	0.53	0.414	1.85+2	1.66+2	1.79+2	1.47+2	8.70+1	7.49+1	5.14+1	1.32+1	4.70-1	7.58-2	3.94-2	2.11+4
25.9	29.913	35.548	22.17	0.58	0.414	1.76+2	1.53+2	1.63+2	1.34+2	6.80+1	5.66+1	3.55+1	6.73+0	1.30-1	4.16-2	3.32-2	1.85+4
30.8	29.851	35.529	22.18	0.82	0.427	1.54+2	1.38+2	1.48+2	1.21+2	5.78+1	4.64+1	2.74+1	4.16+0	6.45-2	3.31-2	2.71-2	1.62+4
35.8	29.655	35.555	22.27	0.98	0.437	1.49+2	1.29+2	1.35+2	1.09+2	4.44+1	3.46+1	1.86+1	2.18+0	4.71-2	3.69-2	3.81-2	1.44+4
40.9	29.593	35.557	22.29	0.87	0.438	1.35+2	1.16+2	1.21+2	9.71+1	3.54+1	2.67+1	1.38+1	1.27+0	3.37-2	3.38-2		1.26+4
45.8	29.583	35.571	22.33	0.83	0.428	1.21+2	1.04+2	1.08+2	8.61+1	2.87+1	2.18+1	9.19+0	7.94+1	2.99-2	2.81-2		1.10+4
50.7	29.368	35.682	22.48	0.75	0.425	1.07+2	9.27+1	9.58+1	7.61+1	2.29+1	1.63+1	6.50+0	5.01-1		2.66-2		9.65+3
55.7	29.062	35.733	22.68	0.68	0.415	9.53+1	8.25+1	8.58+1	6.73+1	1.84+1	1.23+1	4.69+0	3.31-1				8.45+3
60.6	28.658	35.838	22.82	0.77	0.414	8.58+1	7.42+1	7.57+1	5.95+1	1.46+1	8.95+0	3.23+0	2.22-1				7.43+3
65.6	28.151	35.956	23.07	0.95	0.418	7.55+1	6.56+1	6.67+1	5.24+1	1.16+1	6.88+0	2.34+0	1.62-1				6.49+3
70.6	27.935	35.995	23.17	0.98	0.415	6.58+1	5.74+1	5.84+1	4.59+1	9.24+0	5.29+0	1.69+0	1.13-1				5.61+3
75.5	27.687	36.027	23.38	1.04	0.414	5.56+1	4.98+1	5.08+1	4.08+1	6.93+0	3.98+0	1.19+0	7.92-2				4.82+3
80.6	27.321	36.049	23.41	1.14	0.414	4.64+1	4.24+1	4.36+1	3.46+1	5.51+0	3.07+0	8.77-1	6.26-2				4.09+3
85.5	26.979	36.187	23.57	1.18	0.412	3.78+1	3.57+1	3.73+1	2.98+1	4.30+0	2.31+0	6.16-1	4.61-2				3.44+3
90.4	26.832	36.124	23.63	1.23	0.414	3.08+1	2.98+1	3.16+1	2.55+1	3.46+0	1.81+0	4.74-1	4.49-2				2.88+3
95.5	26.521	36.168	23.75	1.39	0.412	2.51+1	2.48+1	2.67+1	2.17+1	2.64+0	1.33+0	3.28-1	3.68-2				2.48+3
100.4	26.264	36.178	23.84	1.44	0.409	1.87+1	2.03+1	2.22+1	1.83+1	2.10+0	1.02+0	2.58-1					1.96+2
105.3	26.081	36.189	23.94	1.52	0.410	1.46+1	1.64+1	1.84+1	1.52+1	1.58+0	7.44-1	1.69-1					1.59+3
110.4	25.835	36.281	24.08	1.55	0.407	1.12+1	1.32+1	1.51+1	1.26+1	1.23+0	5.59-1	1.24-1					1.28+3
115.3	25.588	36.286	24.08	1.58	0.485	8.93+0	8.03+1	1.28+1	1.04+1	9.67-1	4.24-1	9.70-2					1.04+3
120.3	25.372	36.281	24.14	1.62	0.401	7.06+0	8.38+0	1.01+1	8.68+0	7.50-1	3.18-1	7.14-2					8.42+2
125.3	25.123	36.192	24.21	1.78	0.400	5.39+0	6.60+0	8.18+0	7.85+0	5.84-1	2.35-1	5.52-2					6.72+2
130.3	24.921	36.177	24.26	1.95	0.482	4.82+0	5.14+0	6.55+0	5.75+0	4.55-1	1.74-1						5.31+2
135.2	24.568	36.167	24.36	2.01	0.401	3.01+0	4.00+0	5.24+0	4.66+0	3.46-1	1.25-1						4.28+2
140.1	24.502	36.164	24.38	2.08	0.402	2.27+0	3.12+0	4.19+0	3.78+0	2.76-1	1.07-1						3.33+2
145.2	24.269	36.136	24.43	1.92	0.401	1.68+0	2.43+0	3.35+0	3.06+0	2.14-1	8.39-2						2.63+2
150.2	23.979	36.123	24.58	1.74	0.397	1.25+0	1.90+0	2.69+0	2.58+0	1.64-1	6.70-2						2.09+2
155.1	23.784	36.112	24.55	1.61	0.395	9.53-1	1.52+0	2.19+0	2.05+0	1.29-1							1.68+2
160.2	23.679	36.099	24.57	1.58	0.394	7.38-1	1.23+0	1.81+0	1.71+0	9.86-2							1.37+2
165.1	23.549	36.081	24.68	1.36	0.392	5.61-1	1.00+0	1.58+0	1.43+0	7.87-2							1.13+2
170.1	23.392	36.072	24.64	1.23	0.398	4.41-1	8.16-1	1.25+0	1.28+0	6.48-2							9.34+1
174.9	23.122	36.039	24.69	1.15	0.386	3.63-1	6.86-1	1.05+0	1.02+0	4.56-2							7.82+1
180.1	23.075	36.041	24.71	1.09	0.386	2.79-1	5.65-1	8.81-1	8.54-1								6.48+1
185.0	22.834	36.003	24.75	0.89	0.385	2.23-1	4.57-1	7.29-1	7.17-1								5.29+1
190.0	22.553	35.977	24.81	0.83	0.363	1.76-1	3.77-1	6.86-1	6.95-1								4.48+1
195.0	22.448	35.962	24.83	0.82	0.382	1.48-1	3.18-1	5.17-1	5.12-1								3.71+1
199.9	22.406	35.952	24.83	0.73	0.361	1.09-1	2.63-1	4.43-1	4.36-1								3.13+1
204.9	22.099	35.913	24.89	0.78	0.379	8.51-2	2.17-1	3.66-1	3.71-1								2.61+1
210.8	21.692	35.863	24.97	0.63	0.377			1.79-1	3.04-1	3.16-1							2.08+1
214.9	21.555	35.842	24.99	0.59	0.377			1.68-1	2.78-1	2.78-1							1.82+1
219.8	21.099	35.767	25.07	0.58	0.375			1.24-1	2.17-1	2.31-1							1.49+1
224.8	20.825	35.762	25.13	0.48	0.374			9.89-2	1.84-1	1.98-1							1.25+1
229.6	20.577	35.727	25.17	0.45	0.373			8.66-2	1.52-1	1.68-1							1.06+1
234.7	20.405	35.710	25.20	0.45	0.373			6.92-2	1.28-1	1.43-1							8.23+0
239.7	20.299	35.687	25.21	0.43	0.372			5.51-2	1.04-1	1.21-1							7.31+0

LISTING OF SPECTRAL IRRADIANCE IN dB ATTENUATION

Spectral Radiometer Data File : DISCO 1 UP CAST.MDAT.S

Cast Label : RP-9-D1-B4 LEG 2 STATION 1 29-FEB-84 1600 UP CAST

Lat. 15.0000N Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Deck]
M	deg C	ppt	&-T	V.	Atten												
0.9	24.931	33.565	22.28	0.96	0.485	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
5.9	24.891	34.582	23.06	0.21	0.375	0.2	0.3	0.4	0.5	1.3	1.5	1.9	3.7	8.0	11.4	14.0	0.754
11.0	24.871	34.573	23.06	0.21	0.375	0.7	0.7	0.8	0.9	2.2	2.6	3.5	6.7	15.8	22.4		0.982
15.8	24.872	34.574	23.06	0.22	0.376	0.6	0.7	1.0	1.2	3.3	3.9	5.3	9.9	23.0			0.886
20.8	24.797	34.556	23.07	0.23	0.382	0.9	1.0	1.3	1.6	4.3	5.0	6.8	12.8				0.845
25.9	24.809	34.657	23.14	0.22	0.385	1.4	1.4	1.8	2.0	5.2	6.2	8.3	15.5				0.998
30.9	24.854	34.708	23.17	0.24	0.388	1.6	1.7	2.2	2.5	6.5	7.7	10.5	18.9				0.922
35.8	24.864	34.722	23.18	0.24	0.378	2.1	2.2	2.7	3.0	7.4	8.8	12.1	21.2				0.942
40.9	24.863	34.728	23.18	0.24	0.381	2.6	2.6	3.1	3.5	8.5	10.1	13.8	23.6				0.989
45.8	24.868	34.733	23.19	0.25	0.379	3.0	3.0	3.6	4.0	9.6	11.7	15.6	26.0				0.966
50.7	24.891	34.742	23.18	0.26	0.379	3.4	3.5	4.1	4.6	10.6	13.0	17.2					0.956
55.6	24.918	34.754	23.19	0.26	0.377	3.8	3.9	4.6	5.2	11.9	14.3	18.8					0.899
60.7	24.932	34.763	23.19	0.29	0.381	4.4	4.5	5.2	5.8	13.3	15.8	20.8					0.937
65.6	24.935	34.784	23.20	0.33	0.382	5.8	5.8	5.8	6.4	14.3	17.8	22.1					0.945
70.6	24.938	34.823	23.23	0.38	0.386	5.5	5.5	6.3	6.9	15.3	18.2	23.5					0.928
75.6	24.857	34.889	23.31	0.42	0.386	6.2	6.1	7.8	7.6	16.4	19.6	25.1					0.955
80.6	24.889	34.925	23.35	0.40	0.384	6.8	6.8	7.6	8.2	17.4	20.7						0.926
85.6	24.751	34.942	23.38	0.42	0.386	7.5	7.4	8.2	8.8	18.6	22.1						0.940
90.5	24.716	34.941	23.39	0.44	0.382	8.2	8.1	8.9	9.5	19.6	23.2						0.956
95.5	24.678	34.948	23.40	0.48	0.382	9.2	8.7	9.6	10.2	20.7	24.6						0.948
100.4	24.538	34.985	23.48	0.57	0.382	9.9	9.3	10.1	10.9	21.7							0.935
105.4	24.321	35.048	23.59	0.56	0.383	18.8	18.1	18.9	11.7	22.8							0.935
110.4	24.200	35.071	23.64	0.63	0.382	11.5	11.8	11.8	12.4	23.8							0.914
115.4	23.999	35.098	23.72	0.68	0.378	12.5	11.9	12.7	13.2	24.8							0.942
120.4	23.785	35.084	23.80	0.89	0.382	13.5	12.9	13.5	14.0	25.9							0.941
125.3	22.433	34.878	24.00	1.05	0.375	14.8	13.9	14.4	14.8								0.940
130.2	22.151	35.090	24.25	1.14	0.375	16.3	15.1	15.5	15.7								0.927
135.2	21.937	35.157	24.36	1.77	0.385	17.7	16.3	16.5	16.6								0.934
140.1	21.833	35.168	24.40	1.47	0.383	19.0	17.4	17.5	17.5								0.951
145.1	21.707	35.191	24.45	1.09	0.375	20.2	16.4	16.4	18.4								0.986
150.1	21.598	35.201	24.49	1.09	0.374	21.3	19.3	19.3	19.1								0.925
154.9	21.509	35.189	24.50	0.91	0.373	22.3	20.2	20.1	19.9								0.943
160.2	21.191	35.101	24.52	0.88	0.373		21.8	20.8	20.6								0.932
165.1	20.168	34.973	24.70	0.88	0.373		22.0	21.7	21.3								0.949
170.0	19.449	34.856	24.80	0.71	0.371		22.8	22.4	22.0								0.966
174.9	18.563	34.745	24.94	0.58	0.369		23.6	23.1	22.5								0.966
180.0	17.538	34.654	25.12	0.46	0.367		24.3	23.7	23.0								0.936
185.0	16.743	34.541	25.23	0.58	0.366		25.1	24.4	23.5								0.962

Spectral Radiometer Data File : DISCO 2 UP CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STATION 2 1-MAR-84 1325 L UP CAST
 Lat. 10.0000N Long. 158.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam		Irradiance dB Atten.												
M	deg C	ppt	g-T	V.	Atten	410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Deck I		
1.8	25.898	30.938	20.80	0.46	0.735	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000	
5.9	25.893	34.265	22.52	0.29	0.386	0.5	0.5	0.5	0.5	1.0	1.1	1.5	2.8	6.7	9.5	11.4	1.065		
11.0	25.902	34.263	22.51	0.28	0.388	2.9	2.1	1.4	0.9	0.4	0.2	0.4	2.2	8.7	13.7	17.1	6.898		
15.9	25.859	34.266	22.53	0.32	0.386	3.2	2.4	1.8	1.2	1.3	1.2	1.7	4.5	14.3	21.1		5.527		
20.8	25.818	34.263	22.54	0.39	0.388	3.6	2.7	2.1	1.6	2.2	2.4	3.3	7.5	21.8			5.626		
25.8	25.808	34.264	22.54	0.41	0.388	4.3	3.3	2.7	2.1	3.0	3.2	4.3	9.4	25.6			6.871		
30.9	25.806	34.264	22.54	0.46	0.389	4.3	3.5	3.0	2.5	4.2	4.7	6.3	13.0				4.713		
35.8	25.807	34.263	22.54	0.49	0.389	4.8	4.0	3.5	3.0	5.0	5.6	7.5	14.9				5.032		
40.8	25.804	34.262	22.54	0.58	0.387	5.2	4.4	3.9	3.5	6.1	6.9	9.2	17.6				4.447		
45.8	25.799	34.263	22.54	0.55	0.388	6.0	5.1	4.5	4.0	7.0	7.8	10.4	19.5				5.248		
50.8	25.796	34.258	22.54	0.59	0.388	6.7	5.7	5.1	4.6	7.8	8.8	12.0	21.4				5.675		
55.7	25.793	34.251	22.54	0.63	0.386	7.0	6.2	5.6	5.1	8.9	10.1	13.5	23.3				4.838		
60.7	25.795	34.242	22.53	0.64	0.381	7.6	6.7	6.2	5.7	10.0	11.6	15.3					4.752		
65.6	25.772	34.237	22.53	0.63	0.367	8.4	7.4	6.9	6.4	11.0	12.8	16.8					5.187		
70.6	22.181	34.408	23.72	1.52	0.402	9.6	8.4	7.7	7.2	12.0	13.9	18.1					5.708		
75.6	20.395	34.417	24.22	1.93	0.448	11.1	9.6	8.8	8.1	13.5	15.3	19.6					5.157		
80.6	18.536	34.405	24.69	2.05	0.404	13.3	11.1	10.0	9.2	14.8	16.7	21.3					5.296		
85.6	16.512	34.389	25.16	1.68	0.398	15.5	12.7	11.3	10.4	16.2	18.2	23.0					5.126		
90.4	15.461	34.378	25.39	1.79	0.393	17.6	14.4	12.7	11.6	17.9	20.8						5.154		
95.5	14.004	34.494	25.88	1.78	0.389	19.9	16.2	14.8	12.8	19.1	21.4						5.317		
100.4	13.597	34.552	25.93	1.58	0.388	22.4	18.1	15.7	14.1	20.6	22.9						5.525		
105.3	13.442	34.569	25.97	1.38	0.375	24.5	19.6	16.9	15.3	21.8	24.2						5.328		
110.4	13.268	34.581	26.02	1.15	0.375	26.9	21.4	18.3	16.6	23.2							5.061		
115.4	12.849	34.609	26.12	1.83	0.373		23.2	19.7	17.8	24.7							5.141		
120.4	12.629	34.622	26.18	0.95	0.372		24.9	21.1	19.8	26.8							5.053		
125.4	12.358	34.656	26.26	0.79	0.371		26.6	22.4	20.2								5.233		
130.2	12.159	34.671	26.31	0.75	0.369		28.2	23.7	21.3								5.057		
135.2	11.969	34.670	26.34	0.66	0.364			24.9	22.4								5.257		
140.1	11.816	34.680	26.38	0.68	0.363			26.1	23.5								5.197		
145.1	11.634	34.698	26.42	0.58	0.364			27.3	24.5								5.164		
150.2	11.525	34.707	26.45	0.48	0.362			28.4	25.5								5.221		
155.1	11.522	34.715	26.46	0.39	0.362				26.5								5.178		
160.1	11.366	34.718	26.49	0.33	0.362				27.5								5.238		
165.1	11.272	34.718	26.50	0.33	0.362												5.348		
170.0	11.169	34.714	26.53	0.29	0.363												5.281		
174.8	11.067	34.706	26.54	0.34	0.362												5.233		
188.0	10.958	34.705	26.56	0.37	0.362												5.288		
184.9	10.876	34.708	26.57	0.38	0.362												5.411		
189.8	10.823	34.782	26.58	0.39	0.363												5.323		
194.9	10.735	34.697	26.59	0.39	0.364												5.183		
199.9	10.666	34.696	26.60	0.38	0.364												5.447		
204.9	10.632	34.691	26.68	0.38	0.364												3.276		
210.0	10.597	34.693	26.61	0.37	0.364												3.054		
214.8	10.558	34.698	26.62	0.37	0.364												3.526		
219.8	10.465	34.698	26.63	0.38	0.366												3.622		
224.7	10.407	34.691	26.64	0.39	0.367												3.673		
229.6	10.387	34.699	26.65	0.32	0.369												3.479		
234.7	10.333	34.694	26.66	0.42	0.369												5.431		

Spectral Radiometer Data File : DISCO 4 DN CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STATION 4 3-MAR-84 1038 DOWN CAST
 Lat. 4.0000N Long. 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &T	Fluor V.	Beam Atten	Irradiance dB Atten.													Deck I
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	568 nm	589 nm	625 nm	671 nm	694 nm			
2.1	26.916	34.427	22.32	0.57	0.426	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000	
7.0	26.881	34.432	22.33	0.55	0.409	0.4	0.5	0.5	0.5	1.0	1.1	1.5	2.9	6.6	9.4	11.6	0.898		
11.9	26.834	34.424	22.34	0.74	0.418	0.8	0.8	0.9	0.9	1.8	2.1	2.8	5.4	12.5	17.9	21.5	0.869		
16.9	26.797	34.427	22.36	0.94	0.428	1.6	1.5	1.5	1.4	2.7	3.0	4.0	7.8	18.6	25.1		1.132		
21.9	26.798	34.429	22.36	1.02	0.428	2.1	2.8	2.0	2.0	3.6	4.2	5.5	10.4	24.6			1.023		
26.8	26.781	34.431	22.37	1.17	0.419	2.6	2.6	2.6	2.6	4.6	5.3	7.0	12.9				0.928		
31.9	26.766	34.436	22.37	1.27	0.428	3.3	3.3	3.2	3.2	5.7	6.6	8.6	15.9				0.915		
36.7	26.750	34.442	22.38	1.32	0.419	3.9	4.8	3.9	3.8	6.8	7.7	10.1	18.3				0.912		
41.7	26.734	34.445	22.39	1.48	0.417	4.7	4.7	4.6	4.5	7.8	8.9	11.6	20.7				0.922		
46.7	26.704	34.457	22.41	1.48	0.416	5.5	5.4	5.4	5.2	8.9	10.1	13.3	22.9				0.908		
51.8	26.672	34.462	22.42	1.65	0.415	6.3	6.2	6.1	5.9	10.8	11.3	15.8	25.1				0.901		
56.7	26.561	34.483	22.47	1.77	0.415	7.1	7.1	6.9	6.7	11.2	12.7	16.6	27.2				0.902		
61.7	26.448	34.516	22.53	1.86	0.409	8.1	8.0	7.8	7.5	12.2	14.0	18.0					0.947		
66.6	26.389	34.538	22.57	2.05	0.404	8.9	8.8	8.6	8.3	13.5	15.5	19.8					0.888		
71.6	26.333	34.564	22.61	2.13	0.485	9.8	9.6	9.4	9.0	14.7	16.7	21.2					0.888		
76.6	26.055	34.589	22.71	2.26	0.399	11.1	10.6	10.2	9.8	15.8	17.8	22.6					0.932		
81.6	25.446	34.513	22.84	2.22	0.398	12.3	11.6	11.1	10.6	17.0	19.2	24.2					0.915		
86.5	24.134	34.767	23.43	2.29	0.389	13.7	12.8	12.1	11.6	18.2	20.5	25.6					0.923		
91.5	23.145	34.852	23.78	2.24	0.388	15.2	14.3	13.2	12.6	19.5	21.9	27.3					0.941		
96.5	21.889	34.775	24.88	1.87	0.382	16.7	15.5	14.5	13.6	20.7	23.4						0.911		
101.5	20.726	34.788	24.41	1.60	0.376	16.2	16.7	15.5	14.7	21.8	24.6						0.919		
106.4	20.114	34.567	24.48	1.42	0.375	20.0	18.0	16.7	15.7	23.1	26.1						0.912		
111.4	18.778	34.652	24.82	1.10	0.373	21.8	19.3	17.7	16.7	24.4							0.907		
116.4	17.773	34.673	25.08	0.88	0.371	23.5	20.6	18.8	17.7	25.6							0.918		
121.3	16.673	34.529	25.23	0.72	0.369	25.3	21.9	19.8	18.6	26.8							0.917		
126.4	15.587	34.618	25.55	0.54	0.364	23.1	20.8	19.5	27.9								0.913		
131.2	15.174	34.609	25.63	0.46	0.364		24.4	21.8	20.3								0.925		
136.2	14.589	34.542	25.71	0.40	0.363		25.6	22.7	21.2								0.912		
141.2	13.574	34.442	25.85	0.35	0.361		26.8	23.6	22.8								0.924		
146.1	12.989	34.591	26.18	0.32	0.368		24.5	22.8									0.922		
151.1	12.388	34.638	26.24	0.32	0.361		25.4	23.6									0.914		
156.1	11.921	34.592	26.29	0.38	0.360		26.3	24.4									0.916		
161.1	11.396	34.585	26.38	0.28	0.360		27.3	25.2									0.919		
166.1	11.162	34.565	26.41	0.28	0.360		28.2	26.0									0.938		
171.1	10.987	34.578	26.45	0.30	0.360			26.8									0.908		
176.1	10.812	34.577	26.48	0.29	0.362			27.6									0.922		
181.0	10.668	34.568	26.50	0.28	0.364												0.898		
186.1	10.493	34.588	26.55	0.29	0.366												0.938		
198.9	10.418	34.571	26.55	0.29	0.371												0.918		
195.8	10.281	34.565	26.57	0.29	0.373												0.911		
200.9	10.131	34.596	26.62	0.28	0.375												0.934		
205.8	10.073	34.600	26.63	0.28	0.382												0.912		
210.8	10.020	34.604	26.64	0.28	0.386												0.931		
215.8	9.969	34.609	26.65	0.28	0.391												0.932		
220.9	9.925	34.614	26.67	0.29	0.395												0.924		
225.8	9.944	34.629	26.68	0.29	0.400												0.934		
230.7	9.895	34.630	26.68	0.29	0.402												0.895		
235.7	9.885	34.647	26.70	0.30	0.404												0.861		

Spectral Radiometer Data File : DISCO 5 DN CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STATION 5 AT EQUATOR 4-MAR-84 1250L DN
Lat. 0.0000N Long. 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &T	Fluor V.	Beam Atten	Irradiance dB Atten.													Deck 1
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	568 nm	589 nm	625 nm	671 nm	694 nm	8.0		
1.1	26.121	34.935	22.95	1.88	0.465	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.000	
6.0	26.094	34.931	22.96	1.28	0.455	0.7	0.7	0.6	0.6	0.9	1.0	1.3	2.5	5.9	8.5	10.4	0.969		
11.0	25.748	34.929	23.06	1.88	0.474	1.3	1.4	1.3	1.2	1.9	2.1	2.8	5.4	12.4	17.9	21.5	0.951		
15.9	25.676	34.930	23.09	2.26	0.479	2.1	2.2	2.1	1.9	2.9	3.2	4.2	8.8	18.3	25.1	0.941			
20.9	25.605	34.945	23.12	2.59	0.484	3.1	3.1	2.9	2.6	4.0	4.4	5.7	10.6	24.8	30.0	1.073			
25.8	25.468	34.939	23.16	2.97	0.487	3.9	4.1	3.8	3.5	5.1	5.6	7.3	13.2				0.979		
30.8	25.302	34.958	23.22	3.43	0.488	4.8	5.1	4.7	4.3	6.3	6.9	8.8	16.0				0.946		
35.8	25.182	34.984	23.28	3.83	0.486	5.9	6.2	5.8	5.2	7.4	8.1	10.4	18.5				0.958		
40.8	24.958	34.985	23.35	4.28	0.482	7.0	7.3	6.8	6.2	8.7	9.5	12.0	21.1				0.917		
45.8	24.669	35.033	23.47	4.68	0.488	8.3	8.6	7.9	7.2	9.9	10.7	13.6	23.4				0.977		
50.7	24.413	35.031	23.55	5.83	0.474	9.5	9.9	9.1	8.2	11.1	12.6	15.4	25.7				0.985		
55.7	24.184	35.071	23.65	5.57	0.471	10.9	11.3	10.4	9.4	12.4	13.5	17.2	28.0				0.966		
60.7	23.983	35.027	23.70	5.94	0.471	12.8	12.7	11.7	10.6	13.8	15.2	19.0					0.977		
65.6	23.534	35.081	23.78	6.21	0.466	14.4	14.6	13.2	11.9	15.6	16.8	28.9					0.964		
70.6	23.257	35.039	23.89	6.13	0.468	16.3	16.4	14.9	13.2	17.1	18.5	22.8					0.968		
75.5	22.728	35.075	24.08	5.85	0.456	17.9	17.9	16.4	14.7	18.6	20.0	24.5					0.961		
80.5	22.386	35.137	24.24	5.99	0.442	19.7	19.6	17.8	16.1	20.1	21.5	26.2					0.938		
85.6	21.318	35.283	24.63	4.56	0.423	21.5	21.2	19.3	17.5	21.6	23.3						0.893		
90.5	20.889	35.175	24.68	3.62	0.418	23.2	22.6	20.5	18.7	23.8	24.8						0.922		
95.5	20.181	35.322	24.96	2.96	0.482	24.8	23.8	21.6	19.8	24.4	26.3						0.942		
100.4	19.719	35.287	25.06	2.68	0.482		25.0	22.7	20.7	25.7	27.9						0.942		
105.4	18.338	35.165	25.32	2.84	0.397		26.2	23.6	21.6	26.9							0.946		
110.3	18.024	35.155	25.39	1.67	0.394		27.2	24.6	22.5	26.1							0.956		
115.4	17.867	35.137	25.41	1.33	0.389		28.2	25.4	23.3	29.1							1.007		
120.3	16.982	34.955	25.51	1.24	0.389			26.2	24.1								0.868		
125.4	16.688	34.992	25.61	1.21	0.386			26.9	24.8								0.862		
130.2	16.576	35.061	25.66	0.97	0.382				27.6	25.4							0.983		
135.2	16.398	35.094	25.73	0.81	0.378				28.3	26.1							0.989		
140.1	16.183	34.955	25.69	0.73	0.377				29.0	26.7							0.993		
145.1	15.689	35.028	25.86	0.63	0.375					27.4							0.976		
150.1	15.419	35.086	25.89	0.59	0.373					28.1							0.951		
155.1	15.200	34.972	25.91	0.58	0.372												0.971		
160.1	15.196	35.063	25.98	0.54	0.371												0.985		
165.1	14.833	34.783	25.84	0.36	0.378												0.768		
170.1	14.254	34.896	26.06	0.46	0.371												0.731		
174.9	14.076	34.891	26.09	0.47	0.369												0.733		
180.0	13.926	34.872	26.11	0.49	0.370												0.775		
185.0	13.790	34.864	26.13	0.52	0.369												0.677		
189.9	13.645	34.892	26.18	0.51	0.378												0.892		
195.0	13.574	34.912	26.21	0.63	0.378												0.936		
199.9	13.516	34.865	26.19	0.48	0.371												0.946		
204.9	13.172	34.813	26.22	0.49	0.372												0.933		
210.0	13.027	34.929	26.34	0.08	0.373												0.978		
214.9	12.922	34.998	26.48	0.01	0.375												1.014		
219.8	12.882	34.946	26.39	0.01	0.375												0.916		
224.7	12.671	34.852	26.35	0.49	0.374												0.671		
229.7	12.568	34.962	26.45	0.04	0.375												0.911		
234.7	12.496	34.939	26.45	-0.01	0.374												0.984		

Spectral Radiometer Data File : DISCO 6 UP CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 6 2 DEG S 5-MAR-84 1200 UP CAST
 Lat. 2.0000S Long. 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &T	Fluor U.	Beam Atten	Irradiance dB Atten.												Deck I
						410 nM	441 nM	465 nM	488 nM	520 nM	540 nM	560 nM	589 nM	625 nM	671 nM	694 nM		
1.1	26.325	34.917	22.98	1.02	0.446	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	1.000	
6.8	26.187	34.901	22.91	1.24	0.445	8.7	8.6	8.6	8.6	1.0	1.1	1.5	2.7	6.1	8.7	10.6	1.056	
11.0	26.126	34.912	22.93	1.49	0.453	1.4	1.3	1.3	1.3	2.0	2.2	2.9	5.2	11.8	16.9	20.4	1.067	
15.9	26.103	34.908	22.94	1.80	0.452	1.8	2.0	1.9	1.9	3.2	3.5	4.6	8.5	19.1	26.0	0.955		
20.9	26.091	34.904	22.94	2.03	0.454	2.6	2.6	2.6	2.5	4.0	4.5	5.8	10.6	24.2	30.3	1.039		
25.9	26.084	34.906	22.94	2.21	0.450	3.3	3.2	3.2	3.8	5.0	5.6	7.3	13.1	29.7		1.068		
30.8	26.082	34.908	22.94	2.46	0.450	4.0	4.0	3.8	3.7	6.0	6.7	8.7	15.6		1.046			
35.8	26.078	34.905	22.94	2.81	0.459	4.7	4.7	4.5	4.3	7.1	7.9	10.2	18.1		1.022			
40.8	26.077	34.912	22.95	2.57	0.448	5.5	5.4	5.2	5.0	8.1	9.1	11.7	20.5		1.024			
45.7	26.066	34.909	22.95	2.81	0.456	6.3	6.2	5.9	5.7	9.1	10.2	13.0	22.6		1.041			
50.8	26.066	34.904	22.95	2.78	0.443	7.1	6.9	6.7	6.4	10.2	11.4	14.8	24.9		1.048			
55.7	26.068	34.911	22.95	2.94	0.441	7.9	7.7	7.4	7.1	11.2	12.5	16.3	26.9		1.036			
60.7	26.050	34.902	22.95	3.25	0.438	8.7	8.5	8.2	7.8	12.3	13.8	17.8	28.9		1.031			
65.6	26.048	34.909	22.96	3.30	0.435	9.5	9.3	8.9	8.5	13.3	15.2	19.4		1.036				
70.6	26.001	34.898	22.96	3.56	0.432	18.3	18.1	9.7	9.2	14.4	16.4	20.9			1.037			
75.6	25.946	34.908	22.98	3.48	0.423	11.2	18.9	10.5	10.8	15.6	17.6	22.4			1.042			
80.6	25.844	34.877	23.00	3.59	0.418	12.3	11.7	11.2	10.7	16.8	18.9	23.9			1.046			
85.5	25.422	35.267	23.42	3.48	0.418	13.2	12.5	12.8	11.5	17.9	20.1	25.4			1.039			
90.4	24.329	35.411	23.86	3.45	0.408	14.3	13.4	12.9	12.2	19.0	21.3	26.9			1.045			
95.5	23.697	35.426	24.06	3.32	0.407	15.4	14.6	13.7	13.0	20.2	22.6	28.4			1.044			
100.5	22.908	35.448	24.31	3.27	0.483	16.7	15.7	14.7	13.9	21.4	24.0				1.057			
105.3	21.435	35.484	24.75	3.18	0.397	17.8	16.7	15.8	14.8	22.5	25.2				1.068			
110.4	20.168	35.365	25.00	3.14	0.398	19.1	17.7	16.7	15.8	23.6	26.4				1.038			
115.4	18.278	35.258	25.40	2.84	0.397	20.7	19.0	17.8	16.8	24.9	27.8				1.046			
120.3	16.997	35.191	25.66	2.22	0.393	22.3	20.2	18.9	17.8	26.1					1.051			
125.4	16.123	35.147	25.84	1.78	0.389	24.0	21.5	20.8	18.8	27.3					1.045			
130.3	15.161	35.106	26.02	1.68	0.386	25.6	22.7	21.8	19.8	28.5					1.058			
135.3	15.023	35.083	26.03	1.38	0.383		24.0	22.0	20.7						1.044			
140.2	14.231	35.018	26.15	1.22	0.381		25.2	23.0	21.6						1.055			
145.1	13.692	34.969	26.23	1.03	0.388		26.4	24.8	22.5						1.061			
150.1	13.536	34.958	26.25	0.98	0.378		27.7	25.0	23.4						1.076			
155.0	13.406	34.951	26.28	0.88	0.376		28.8	25.9	24.2						1.064			
160.2	13.325	34.944	26.29	0.88	0.374			26.8	25.1						1.057			
165.2	13.195	34.938	26.38	0.67	0.373			27.8	25.9						1.066			
170.0	13.079	34.928	26.32	0.66	0.378			26.7	26.6						1.051			
175.0	13.019	34.916	26.33	0.62	0.373			29.5	27.4						0.968			
180.0	12.961	34.915	26.34	0.58	0.378				28.1						0.898			
184.9	12.941	34.913	26.34	0.59	0.369										0.905			
189.9	12.894	34.909	26.35	0.58	0.369										0.894			
194.9	12.861	34.909	26.35	0.68	0.369										0.893			
199.9	12.829	34.908	26.36	0.58	0.368										0.898			
205.0	12.771	34.902	26.37	0.58	0.369										0.896			
210.0	12.751	34.901	26.37	0.57	0.378										0.853			
214.9	12.705	34.899	26.38	0.58	0.369										0.897			
219.8	12.637	34.895	26.39	0.60	0.378										0.753			
224.7	12.575	34.894	26.40	0.60	0.368										0.671			
229.7	12.542	34.887	26.40	0.60	0.378										0.669			
234.7	12.481	34.887	26.41	0.59	0.378										0.681			

Spectral Radiometer Data File : DISCO 7 DN CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 7 6 DEG S 6-MAR-84 1330 L DN CAST
 Lat. 6.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam		Irradiance dB Atten.												
M	deg C	ppt	A-T	V.	Atten		410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Deck I	
1.8	29.598	35.194	22.02	1.88	0.536	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.008	
6.8	29.391	35.303	22.17	0.59	0.412	0.3	0.4	0.5	0.5	1.1	1.2	1.6	3.0	6.5	9.2	11.2	0.737		
11.8	29.192	35.338	22.26	0.71	0.417	1.1	1.0	1.1	1.1	2.0	2.3	2.9	5.5	12.4	17.7	21.5	0.994		
15.9	29.168	35.318	22.25	0.83	0.420	1.5	1.6	1.6	1.7	3.1	3.5	4.5	8.3	18.9	26.1		0.987		
20.8	29.157	35.314	22.25	0.92	0.419	2.0	2.1	2.2	2.2	4.1	4.6	6.0	11.0	25.0			0.971		
25.9	29.149	35.316	22.26	0.97	0.418	2.5	2.6	2.7	2.7	5.1	5.7	7.4	13.5				0.929		
30.8	29.110	35.304	22.26	1.07	0.421	3.1	3.2	3.2	3.2	6.0	6.8	8.8	15.9				1.016		
35.8	29.010	35.258	22.26	1.17	0.426	3.5	3.6	3.8	3.8	7.1	8.0	10.5	18.8				0.888		
40.7	28.084	35.267	22.31	1.16	0.421	4.4	4.4	4.4	4.4	8.0	9.1	11.8	20.8				0.986		
45.8	28.048	35.283	22.33	1.21	0.416	5.1	5.1	5.1	5.1	9.1	10.3	13.3	23.2				0.963		
50.8	28.042	35.284	22.34	1.29	0.416	5.9	5.8	5.8	5.7	10.2	11.5	15.0	25.4				0.941		
55.7	28.025	35.288	22.35	1.42	0.415	6.8	6.6	6.5	6.4	11.2	12.6	16.5	27.3				0.984		
60.6	28.734	35.292	22.38	1.62	0.421	7.7	7.4	7.3	7.1	12.3	14.0	18.2	29.3				0.981		
65.6	28.608	35.306	22.43	2.17	0.425	8.7	8.4	8.1	7.9	13.5	15.5	19.8					0.963		
70.5	28.398	35.294	22.49	3.65	0.431	9.8	9.4	9.1	8.8	14.7	16.7	21.3					0.989		
75.4	27.761	35.354	22.75	4.99	0.433	18.9	18.6	18.1	9.7	16.0	18.0	22.7					0.968		
80.6	27.208	35.277	22.87	5.43	0.429	12.4	11.7	11.2	10.7	17.2	19.4	24.4					0.952		
85.6	27.114	35.311	22.92	5.40	0.424	13.7	12.9	12.2	11.6	18.5	20.7	25.9					0.949		
90.5	26.952	35.396	23.04	5.22	0.419	15.8	14.2	13.4	12.6	19.7	22.1	27.4					0.969		
95.5	26.753	35.501	23.18	4.83	0.412	16.4	15.6	14.5	13.7	21.1	23.6						0.968		
100.4	26.342	35.574	23.37	4.59	0.405	17.7	16.8	15.8	14.8	22.3	24.9						0.955		
105.3	25.902	35.628	23.54	4.26	0.482	19.8	18.8	16.9	15.9	23.5	26.2						0.937		
110.4	25.815	35.767	23.68	3.68	0.399	28.5	19.2	18.8	16.9	24.7	27.7						0.947		
115.4	25.516	35.985	23.87	3.21	0.396	21.8	20.4	19.8	17.9	25.9							0.937		
120.3	24.452	36.088	24.34	2.43	0.387	23.1	21.4	20.0	18.9	27.2							0.931		
125.4	24.010	36.171	24.53	2.82	0.386	24.3	22.4	20.9	19.8	28.4							0.937		
130.3	23.208	35.980	24.56	1.78	0.381	25.6	23.4	21.8	20.6								0.948		
135.2	22.467	35.906	24.78	1.47	0.376		24.3	22.6	21.4								0.937		
140.1	21.468	35.786	24.97	1.28	0.374		25.2	23.4	22.2								0.945		
145.2	21.158	35.888	25.06	1.23	0.373		26.1	24.2	22.9								0.948		
150.1	20.734	35.538	24.97	1.10	0.369		27.0	24.9	23.7								0.951		
155.0	20.871	35.528	25.15	0.99	0.367		27.8	25.7	24.4								0.947		
160.2	19.339	35.462	25.29	0.91	0.365		28.7	26.5	25.1								0.951		
165.2	18.625	35.291	25.34	0.83	0.363		27.3	25.8									0.955		
170.0	17.995	35.412	25.59	0.77	0.362		27.9	26.5									0.945		
175.0	17.605	35.247	25.56	0.73	0.362		26.8	27.2									0.962		
180.0	17.357	35.272	25.64	0.68	0.361		29.4	27.9									0.955		
185.0	16.929	34.975	25.52	0.63	0.361			28.6									0.966		
189.9	16.008	35.121	25.84	0.68	0.360												0.953		
195.0	15.781	35.054	25.86	0.61	0.361												0.943		
199.8	15.289	35.033	25.94	0.59	0.360												0.968		
204.9	14.928	35.042	26.02	0.59	0.360												0.958		
210.0	14.112	34.918	26.10	0.58	0.358												0.946		
214.9	13.801	34.942	26.19	0.56	0.359												0.943		
219.8	13.498	34.917	26.23	0.54	0.359												1.004		
224.7	13.131	34.891	26.28	0.52	0.358												0.926		
229.7	13.028	34.894	26.31	0.52	0.357												0.953		
234.7	12.773	34.879	26.35	0.54	0.358												0.995		

Spectral Radiometer Data File : DISCO 8 DN CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 8 10 DEG S 7-MAR-84 1400 L DN CAST
 Lat. 10.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	----	Irradiance dB Atten.										----
M	deg C	ppt	&T	V.	Atten	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	568 nm	589 nm	625 nm	671 nm	694 nm	Deck I
1.0	38.414	33.062	28.14	1.62	0.495	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
6.0	38.151	35.406	21.99	0.55	0.396	0.5	0.4	0.5	0.5	1.0	1.2	1.5	2.8	6.5	9.2	11.2	1.055
10.9	38.026	35.407	22.03	0.54	0.397	0.7	0.6	0.9	1.0	2.0	2.4	3.1	5.6	12.8	18.0	21.9	0.938
15.9	38.006	35.406	22.04	0.58	0.397	1.1	1.2	1.4	1.5	3.0	3.5	4.6	8.5	19.6	27.0		1.093
20.9	38.001	35.408	22.04	0.63	0.397	1.4	1.4	1.7	1.8	3.9	4.6	6.0	11.0	25.4			1.061
25.8	29.890	35.434	22.10	0.57	0.394	1.6	1.7	2.0	2.2	4.8	5.6	7.4	13.6				1.000
30.8	29.698	35.466	22.19	0.54	0.391	1.9	2.0	2.3	2.6	5.7	6.6	8.7	16.0				0.996
35.9	29.553	35.450	22.22	0.61	0.393	2.4	2.4	2.8	3.0	6.6	7.7	10.1	18.4				1.020
40.8	29.249	35.500	22.36	0.78	0.395	2.6	2.8	3.2	3.5	7.7	8.9	11.7	20.9				0.876
45.7	28.868	35.545	22.53	0.76	0.397	3.3	3.3	3.7	3.9	8.5	9.9	13.1	22.9				0.954
50.8	28.648	35.558	22.61	0.92	0.397	3.9	3.8	4.2	4.5	9.5	11.1	14.8	25.8				0.896
55.7	28.256	35.567	22.74	1.04	0.397	4.7	4.5	4.9	5.1	18.5	12.1	16.2	26.9				0.971
60.7	27.955	35.621	22.88	1.27	0.400	5.6	5.3	5.5	5.7	11.5	13.4	17.7	28.6				1.000
65.6	27.452	35.624	22.99	1.68	0.409	6.5	6.8	6.2	6.4	12.6	14.8	19.3					0.965
70.5	27.515	35.622	23.83	2.11	0.414	7.3	6.8	7.0	7.1	13.8	16.1	20.8					0.943
75.5	27.375	35.553	23.82	2.49	0.413	8.2	7.6	7.7	7.8	15.8	17.4	22.3					0.942
80.5	27.188	35.683	23.12	2.89	0.417	9.1	8.5	8.5	8.5	16.8	18.5	23.7					0.974
85.6	27.087	35.692	23.24	3.11	0.419	18.1	9.3	9.3	9.3	17.1	19.7	25.1					0.964
90.5	26.861	35.713	23.31	3.38	0.418	11.0	10.2	10.1	10.0	18.2	21.0	26.5					0.967
95.5	26.768	35.814	23.41	3.44	0.415	12.3	11.1	10.9	10.8	19.3	22.2	27.8					0.981
100.4	26.677	35.897	23.58	3.59	0.414	13.4	12.1	11.8	11.7	20.5	23.6						0.970
105.4	26.679	36.818	23.59	3.47	0.409	14.6	13.1	12.8	12.5	21.7	24.9						0.995
110.4	26.683	36.861	23.63	3.51	0.410	15.8	14.4	13.7	13.4	22.9	26.3						0.999
115.3	26.593	36.866	23.66	3.68	0.408	17.0	15.5	14.9	14.4	24.1	27.7						1.009
120.4	26.337	36.835	23.72	3.63	0.408	18.2	16.5	15.9	15.4	25.3							0.986
125.4	25.773	36.826	23.89	3.68	0.394	19.5	17.7	16.9	16.4	26.4							0.994
130.3	25.483	36.125	24.08	3.43	0.392	20.9	18.9	18.0	17.4	27.5							0.997
135.2	25.219	36.188	24.17	3.35	0.398	22.3	20.0	19.0	18.3	28.8							0.998
140.1	24.918	36.157	24.25	3.04	0.388	23.6	21.1	20.0	19.2								1.016
145.2	24.486	36.224	24.43	2.61	0.387	24.9	22.2	21.0	20.2								1.010
150.1	24.488	36.238	24.46	2.45	0.386	26.1	23.3	21.9	21.1								1.005
155.0	24.113	36.282	24.52	2.07	0.382		24.3	22.9	22.0								1.010
160.2	23.714	36.296	24.71	1.68	0.376		25.2	23.7	22.8								1.002
165.1	23.282	36.120	24.71	1.25	0.372		26.8	24.5	23.5								1.003
170.1	22.987	36.668	24.75	1.06	0.368		26.8	25.2	24.3								1.001
175.0	22.652	36.054	24.84	0.93	0.368		27.5	25.9	24.9								1.004
180.0	22.198	35.929	24.87	0.77	0.364		28.3	26.6	25.6								1.007
185.0	21.755	35.895	24.97	0.68	0.362			27.2	26.2								1.002
189.9	21.588	35.815	24.96	0.62	0.361			27.9	26.9								1.003
194.9	21.344	35.858	25.86	0.68	0.361			28.6	27.5								1.021
199.8	21.877	35.793	25.88	0.53	0.362			29.2	28.1								1.009
204.8	28.878	35.768	25.12	0.51	0.361												0.996
209.9	20.448	35.639	25.13	0.46	0.360												1.024
214.9	20.868	35.658	25.25	0.44	0.360												0.998
219.7	19.813	35.623	25.29	0.44	0.358												0.985
224.7	19.181	35.438	25.33	0.41	0.359												0.979
229.7	17.827	35.338	25.57	0.41	0.358												0.976
234.7	17.356	35.898	25.58	0.39	0.358												1.011

Spectral Radiometer Data File : DISCO 8 UP CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 8 10 DEG S 7-MAR-84 1400 L UP CAST
 Lat. 10.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Deck 1
M	deg C	ppt	&T	V.	Atten												
1.1	30.358	35.394	21.91	0.51	0.400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000
5.9	30.346	35.413	21.93	0.50	0.398	0.6	0.6	0.6	0.6	1.1	1.3	1.6	3.8	6.6	9.3	11.3	1.276
10.9	30.064	35.409	22.02	0.59	0.409	1.0	1.0	1.1	1.2	2.2	2.6	3.3	6.0	13.4	18.9	22.7	1.438
15.9	30.008	35.408	22.04	0.63	0.409	1.7	1.7	1.8	1.8	3.3	3.8	4.8	8.7	19.9	27.3		1.744
20.9	29.994	35.409	22.04	0.69	0.408	2.1	2.1	2.2	2.3	4.4	5.0	6.4	11.6	26.3			1.883
25.8	29.953	35.409	22.06	0.68	0.403	2.3	2.3	2.6	2.8	5.4	6.2	8.0	14.1				1.598
30.9	29.700	35.443	22.14	0.60	0.397	2.8	2.8	3.0	3.2	6.3	7.2	9.3	16.7				1.841
35.8	29.634	35.478	22.22	0.68	0.397	3.1	3.2	3.4	3.6	7.3	8.3	18.8	19.1				1.665
40.9	29.433	35.479	22.29	0.76	0.398	3.5	3.6	3.9	4.1	8.2	9.4	12.3	21.5				1.734
45.8	29.177	35.511	22.48	0.78	0.405	4.0	4.0	4.4	4.6	9.2	10.6	13.9	23.7				1.658
50.7	28.751	35.542	22.56	0.94	0.487	4.7	4.6	4.9	5.2	18.2	11.7	15.4	25.7				1.738
55.7	28.496	35.564	22.66	1.04	0.410	5.4	5.2	5.5	5.8	11.2	12.8	16.9	27.5				1.735
60.7	28.126	35.608	22.82	1.38	0.489	6.8	5.8	6.1	6.4	12.3	14.3	18.6					1.634
65.6	27.787	35.629	22.95	1.67	0.418	6.9	6.6	6.8	7.0	13.3	15.5	28.0					1.732
70.5	27.542	35.623	23.02	2.23	0.419	7.9	7.4	7.5	7.7	14.4	16.7	21.5					1.743
75.6	27.474	35.628	23.04	2.61	0.423	8.7	8.1	8.2	8.3	15.5	17.9	22.9					1.694
80.5	27.141	35.642	23.16	3.18	0.429	9.6	9.8	9.8	9.1	16.7	19.2	24.4					1.695
85.5	26.926	35.701	23.28	3.32	0.428	10.6	9.9	9.8	9.8	17.7	20.3	25.7					1.738
90.4	26.769	35.762	23.37	3.37	0.425	11.5	10.8	10.7	10.6	18.9	21.6	27.2					1.735
95.5	26.673	35.885	23.50	3.57	0.423	12.9	11.7	11.5	11.4	20.8	22.8						1.765
100.4	26.652	35.969	23.57	3.54	0.419	14.8	12.7	12.5	12.3	21.2	24.2						1.764
105.4	26.683	36.858	23.62	3.57	0.418	15.2	13.8	13.4	13.2	22.3	25.4						1.781
110.4	26.525	36.874	23.69	3.61	0.415	16.4	15.1	14.4	14.1	23.6	26.8						1.745
115.4	26.227	36.881	23.79	3.53	0.409	17.7	16.2	15.5	15.1	24.8	28.1						1.752
120.3	25.948	36.878	23.67	3.43	0.406	18.8	17.2	16.5	16.1	25.9							1.715
125.3	25.464	36.138	24.06	3.39	0.397	20.2	18.4	17.6	17.8	27.1							1.716
130.3	25.322	36.141	24.11	3.12	0.397	21.5	19.5	18.6	18.8	28.2							1.713
135.1	24.988	36.189	24.25	2.85	0.397	22.9	20.7	19.7	19.8	29.4							1.694
140.1	24.529	36.238	24.42	2.52	0.397	24.2	21.8	20.7	19.9								1.726
145.1	24.417	36.232	24.46	2.26	0.397	25.4	22.9	21.7	20.9								1.716
150.1	24.278	36.228	24.58	1.83	0.392	26.6	23.9	22.6	21.8								1.726
155.0	24.036	36.223	24.56	1.52	0.388		24.9	23.5	22.6								1.699
160.2	23.557	36.193	24.68	1.01	0.382		25.8	24.4	23.5								1.698
165.1	23.150	36.137	24.76	0.97	0.378		26.6	25.1	24.2								1.684
170.1	22.865	36.098	24.81	0.83	0.375		27.4	25.9	25.8								1.783
175.0	22.565	36.055	24.86	0.69	0.373		28.2	26.6	25.6								1.787
180.1	22.061	35.972	24.94	0.64	0.378		28.9	27.3	26.3								1.782
184.9	21.659	35.918	25.01	0.59	0.368		27.9	27.0									1.694
189.9	21.370	35.859	25.05	0.55	0.368		28.7	27.6									1.719
195.0	21.303	35.846	25.06	0.53	0.367		29.3	28.3									1.701
199.9	21.073	35.809	25.09	0.50	0.368		29.8										1.724
204.8	20.691	35.746	25.15	0.48	0.365												1.781
210.0	20.268	35.688	25.21	0.44	0.364												1.749
214.9	19.877	35.616	25.27	0.43	0.362												1.725
219.8	19.465	35.530	25.31	0.41	0.362												1.767
224.7	18.320	35.367	25.48	0.39	0.362												1.749
229.7	17.510	35.289	25.62	0.39	0.368												1.773
234.7	16.571	35.198	25.76	0.39	0.359												1.668

Spectral Radiometer Data File : DISCO 9 DN CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1318 L DN CAST

Lat. 15.0000S Long. 150.0000W

Z-ave	Temp	Sal.	Dens.	Fluor	Beam	410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm	Deck I
M	deg C	ppt	&T	V.	Atten												
1.8	30.061	29.906	17.98	2.14	1.114	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.000
6.0	30.011	35.548	22.14	0.44	0.409	0.3	0.4	0.5	0.5	1.1	1.3	1.6	3.0	6.6	9.3	11.4	0.798
18.9	29.939	35.535	22.16	0.43	0.412	0.6	0.7	0.9	1.0	2.1	2.4	3.1	5.7	12.9	18.3	22.0	0.823
15.9	29.913	35.538	22.17	0.45	0.412	0.7	0.9	1.2	1.3	3.8	3.5	4.6	8.5	19.6	26.8		0.767
28.8	29.911	35.539	22.17	0.47	0.411	0.9	1.2	1.4	1.6	3.8	4.5	5.9	10.9	25.4			0.869
25.9	29.906	35.542	22.17	0.48	0.412	1.1	1.4	1.7	2.0	4.7	5.5	7.3	13.5				0.846
30.8	29.901	35.541	22.17	0.51	0.412	1.4	1.7	2.0	2.3	5.5	6.5	8.6	15.8				0.863
35.8	29.785	35.578	22.24	0.59	0.428	1.6	2.0	2.4	2.7	6.5	7.7	10.2	18.5				0.792
40.8	29.656	35.564	22.27	0.86	0.433	2.1	2.4	2.9	3.2	7.4	8.7	11.6	20.7				0.837
45.8	29.585	35.566	22.38	0.85	0.425	2.5	2.9	3.3	3.7	8.4	9.7	13.2	22.9				0.826
50.8	29.437	35.598	22.37	0.84	0.423	2.9	3.3	3.8	4.2	9.2	10.8	14.5	24.7				0.826
55.7	29.187	35.667	22.51	0.74	0.413	3.4	3.7	4.2	4.6	10.1	11.9	15.9	26.3				0.813
60.6	28.942	35.775	22.67	0.68	0.418	3.8	4.2	4.7	5.1	11.1	13.2	17.4					0.813
65.6	28.617	35.831	22.82	0.70	0.418	4.4	4.7	5.2	5.7	12.8	14.3	18.8					0.819
70.5	28.032	36.038	23.17	0.82	0.412	4.9	5.2	5.8	6.2	13.1	15.5	28.2					0.889
75.6	27.888	35.994	23.22	0.92	0.413	5.6	5.8	6.4	6.8	14.3	16.7	21.7					0.812
80.5	27.539	36.034	23.33	0.99	0.411	6.4	6.5	7.0	7.4	15.3	18.0	23.2					0.807
85.6	27.163	36.014	23.44	1.15	0.411	7.2	7.2	7.7	8.0	16.2	19.0	24.4					0.806
90.5	26.948	36.083	23.56	1.27	0.418	8.1	8.0	8.4	8.7	17.2	20.1	25.7					0.814
95.5	26.685	36.158	23.72	1.29	0.409	9.8	8.8	9.1	9.4	18.3	21.4						0.814
100.4	26.468	36.135	23.75	1.36	0.407	10.2	9.6	9.8	10.1	19.4	22.6						0.817
105.3	26.137	36.154	23.87	1.48	0.405	11.2	10.4	10.6	10.8	20.4	23.8						0.819
110.4	25.956	36.209	23.97	1.54	0.404	12.3	11.3	11.4	11.5	21.5	25.1						0.823
115.3	25.725	36.185	24.02	1.59	0.402	13.3	12.3	12.1	12.3	22.6	26.3						0.806
120.3	25.553	36.183	24.07	1.63	0.400	14.5	13.5	13.2	13.2	23.7							0.829
125.3	25.313	36.178	24.14	1.63	0.399	15.5	14.3	14.0	14.8	24.6							0.828
130.3	24.996	36.172	24.23	1.76	0.397	16.7	15.3	14.9	14.9	25.8							0.82c
135.2	24.693	36.142	24.38	2.01	0.398	17.9	16.4	15.9	15.7	26.9							0.821
140.1	24.539	36.158	24.36	2.11	0.398	19.2	17.5	16.8	16.7								0.828
145.2	24.379	36.122	24.38	2.17	0.399	20.5	18.6	17.8	17.6								0.811
150.1	24.047	36.160	24.51	2.18	0.397	21.8	19.7	18.8	18.5								0.806
155.1	23.894	36.107	24.52	1.84	0.396	23.8	28.7	19.7	19.4								0.814
160.1	23.718	36.109	24.57	1.70	0.394	24.2	21.7	28.6	28.2								0.818
165.0	23.567	36.104	24.61	1.53	0.392		22.6	21.5	21.8								0.805
170.0	23.398	36.071	24.64	1.42	0.390		23.5	22.3	21.8								0.802
175.0	23.177	36.049	24.68	1.29	0.388		24.4	22.1	22.6								0.805
180.0	23.089	36.036	24.70	1.25	0.388		25.3	23.9	23.4								0.808
185.0	22.873	35.998	24.73	1.12	0.385		26.1	24.6	24.1								0.806
189.9	22.684	35.972	24.79	0.98	0.383		26.9	25.4	24.8								0.799
194.9	22.467	35.969	24.83	0.78	0.383			26.1	25.5								0.804
199.8	22.418	35.961	24.84	0.72	0.382			26.9	26.2								0.796
204.9	22.320	35.981	24.86	0.64	0.388			27.6	26.9								0.806
209.9	21.782	35.874	24.95	0.61	0.378												0.805
214.9	21.655	35.876	24.98	0.58	0.378												0.799
219.8	21.385	35.786	24.99	0.48	0.376												0.802
224.8	20.944	35.755	25.09	0.40	0.375												0.814
229.7	20.730	35.741	25.14	0.38	0.374												0.805
234.7	20.505	35.712	25.17	0.43	0.374												0.815

Spectral Radiometer Data File : DISCO 9 UP CAST.MDAT.S

Cast Label : RP-9-D1-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1315 L UP CAST
 Lat. 15.0000S Long. 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. g-T	Fluor U.	Bean Atten	Irradiance dB Atten.													Deck]
						410 nm	441 nm	465 nm	488 nm	520 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm			
8.9	29.841	28.348	16.88	8.49	0.814	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.000	
5.9	30.013	35.539	22.13	0.45	0.413	0.2	0.4	0.5	0.6	1.2	1.4	1.8	3.2	7.0	9.7	11.6	0.665		
10.9	29.934	35.541	22.16	0.47	0.416	0.6	0.8	1.0	1.1	2.2	2.5	3.2	5.8	12.7	18.1	21.6	0.788		
15.9	29.920	35.536	22.16	0.58	0.414	1.0	1.2	1.4	1.6	3.2	3.7	4.8	8.6	19.8	27.2		0.844		
20.9	29.916	35.534	22.16	0.53	0.414	1.2	1.5	1.8	2.0	4.2	4.9	6.3	11.2	25.6			0.799		
25.9	29.913	35.540	22.17	0.58	0.414	1.4	1.8	2.2	2.4	5.3	6.1	7.9	14.1				0.754		
30.8	29.851	35.529	22.18	0.82	0.427	2.0	2.3	2.6	2.9	6.0	6.9	9.8	16.2				0.989		
35.8	29.655	35.555	22.27	0.98	0.437	2.1	2.6	3.0	3.3	7.1	8.2	10.7	19.0				0.751		
40.9	29.593	35.557	22.29	0.87	0.430	2.6	3.0	3.5	3.8	8.1	9.3	12.3	21.4				0.768		
45.8	29.583	35.571	22.33	0.83	0.428	3.1	3.5	4.0	4.3	9.0	10.4	13.8	23.4				0.773		
50.7	29.368	35.682	22.48	0.75	0.425	3.6	4.0	4.5	4.9	10.0	11.5	15.3	25.4				0.784		
55.7	29.862	35.733	22.68	0.68	0.415	4.1	4.5	5.0	5.4	10.9	12.7	16.7	27.2				0.803		
60.6	28.658	35.838	22.82	0.77	0.414	4.5	5.0	5.5	5.9	12.0	14.1	18.3					0.781		
65.6	28.151	35.956	23.07	0.95	0.418	5.1	5.5	6.1	6.5	12.9	15.2	19.7					0.782		
70.6	27.935	35.995	23.17	0.98	0.415	5.7	6.1	6.7	7.1	13.9	16.4	21.1					0.786		
75.5	27.687	36.027	23.38	1.04	0.414	6.4	6.7	7.3	7.7	15.2	17.6	22.6					0.777		
80.6	27.321	36.049	23.41	1.14	0.414	7.2	7.4	7.9	8.3	16.2	18.7	24.0					0.779		
85.5	26.979	36.187	23.57	1.18	0.412	8.1	8.2	8.6	9.8	17.3	20.0	25.5					0.793		
90.4	26.832	36.124	23.63	1.23	0.414	9.0	8.9	9.3	9.6	18.2	21.8	26.7					0.787		
95.5	26.521	36.168	23.75	1.39	0.412	9.9	9.7	10.1	10.3	19.4	22.4						0.782		
100.4	26.264	36.178	23.84	1.44	0.409	11.1	10.6	10.9	11.1	20.4	23.5						0.801		
105.3	26.081	36.189	23.94	1.52	0.418	12.2	11.5	11.7	11.9	21.6	24.9						0.796		
110.4	25.835	36.201	24.08	1.55	0.487	13.4	12.5	12.5	12.7	22.7	26.1						0.805		
115.3	25.588	36.206	24.08	1.58	0.485	14.4	13.6	13.3	13.5	23.7							0.778		
120.3	25.372	36.281	24.14	1.62	0.481	15.4	14.4	14.3	14.3	24.8							0.726		
125.3	25.123	36.192	24.21	1.78	0.408	16.6	15.5	15.2	15.2	25.9							0.748		
130.3	24.921	36.177	24.26	1.95	0.402	17.8	16.6	16.2	16.1	27.0							0.784		
135.2	24.568	36.167	24.36	2.01	0.401	19.1	17.7	17.1	17.0	28.2							0.782		
140.1	24.582	36.164	24.38	2.08	0.402	20.3	18.7	18.1	17.9								0.774		
145.2	24.269	36.136	24.43	1.92	0.401	21.6	19.8	19.1	18.8								0.761		
150.2	23.979	36.123	24.50	1.74	0.397	22.9	20.9	20.8	19.7								0.772		
155.1	23.784	36.112	24.55	1.61	0.395	24.1	21.9	20.9	20.6								0.767		
160.2	23.679	36.099	24.57	1.58	0.394	25.2	22.8	21.8	21.4								0.776		
165.1	23.549	36.081	24.68	1.36	0.392		23.7	22.6	22.1								0.776		
170.1	23.392	36.072	24.64	1.23	0.398		24.6	23.4	22.9								0.788		
174.9	23.122	36.039	24.69	1.15	0.386		25.4	24.1	23.6								0.774		
180.1	23.075	36.041	24.71	1.09	0.388		26.2	24.9	24.4								0.778		
185.0	22.834	36.083	24.75	0.89	0.385		27.1	25.7	25.1								0.779		
190.0	22.553	35.977	24.81	0.83	0.383			26.5	25.9								0.788		
195.0	22.448	35.962	24.83	0.82	0.382			27.2	26.6								0.784		
199.9	22.408	35.952	24.83	0.73	0.381			27.9	27.3								0.775		
204.9	22.099	35.913	24.89	0.70	0.379												0.791		
210.0	21.692	35.863	24.97	0.63	0.377												0.799		
214.9	21.555	35.842	24.99	0.59	0.377												0.785		
219.8	21.099	35.787	25.07	0.58	0.375												0.793		
224.8	20.825	35.762	25.13	0.48	0.374												0.797		
229.6	20.577	35.727	25.17	0.45	0.373												0.791		
234.7	20.405	35.710	25.20	0.45	0.373												0.798		

LISTING OF SPECTRAL DIFFUSE ATTENUATION COEFFICIENT [$K(\lambda)$]

Spectral Radiometer Data File : DISCO 1 UP CAST.MDAT.PR

page 1

Cast Label : RP-9-D1-84 LEG 2 STATION 1 29-FEB-84 1600 UP CAST

Latitude: 15.0000N Longitude: 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens.	Fluor	Beam Clean water value->	Diffuse Attenuation (/M)										
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm
8.9	24.931	33.545	22.28	0.96	0.405	0.015	0.010	0.022	0.024	0.055	0.059	0.067	0.109	0.249	0.336	0.411
5.9	24.891	34.582	23.06	0.21	0.375	0.010	0.013	0.017	0.020	0.052	0.061	0.081	0.152	0.352	0.498	0.592
11.0	24.871	34.573	23.06	0.21	0.375	0.009	0.011	0.015	0.018	0.048	0.058	0.078	0.145	0.337	0.427	
15.8	24.872	34.574	23.06	0.22	0.376	0.011	0.012	0.015	0.017	0.047	0.057	0.077	0.144	0.301	0.290	
20.8	24.797	34.556	23.07	0.23	0.382	0.013	0.013	0.017	0.019	0.048	0.057	0.077	0.138	0.222		
25.9	24.809	34.657	23.14	0.22	0.385	0.014	0.015	0.019	0.021	0.050	0.059	0.081	0.134	0.138		
30.9	24.854	34.708	23.17	0.24	0.388	0.016	0.017	0.020	0.023	0.050	0.060	0.083	0.124			
35.8	24.864	34.722	23.18	0.24	0.378	0.019	0.019	0.021	0.023	0.049	0.060	0.081	0.116			
40.9	24.863	34.728	23.18	0.24	0.381	0.020	0.019	0.022	0.023	0.050	0.065	0.082	0.189			
45.8	24.848	34.733	23.19	0.25	0.379	0.021	0.020	0.023	0.025	0.051	0.065	0.079	0.096			
50.7	24.891	34.742	23.18	0.26	0.379	0.022	0.022	0.025	0.027	0.054	0.063	0.077	0.084			
55.6	24.910	34.754	23.19	0.26	0.377	0.024	0.023	0.026	0.027	0.056	0.062	0.076	0.074			
60.7	24.932	34.763	23.19	0.29	0.381	0.025	0.024	0.026	0.027	0.055	0.062	0.076	0.067			
65.6	24.935	34.784	23.20	0.33	0.382	0.026	0.025	0.027	0.027	0.051	0.059	0.071	0.055			
70.6	24.938	34.823	23.23	0.38	0.386	0.028	0.027	0.028	0.028	0.049	0.058	0.067				
75.6	24.857	34.889	23.31	0.42	0.386	0.029	0.028	0.029	0.029	0.050	0.059	0.067				
80.6	24.889	34.925	23.35	0.40	0.384	0.031	0.029	0.029	0.029	0.050	0.058	0.063				
85.6	24.751	34.942	23.38	0.42	0.386	0.035	0.030	0.030	0.030	0.049	0.058	0.059				
90.5	24.716	34.941	23.39	0.44	0.382	0.038	0.031	0.031	0.031	0.058	0.058	0.061				
95.5	24.678	34.948	23.48	0.48	0.382	0.039	0.031	0.031	0.033	0.048	0.055	0.056				
100.4	24.538	34.985	23.48	0.57	0.382	0.036	0.032	0.032	0.034	0.048	0.055	0.052				
105.4	24.321	35.048	23.59	0.56	0.383	0.037	0.037	0.036	0.035	0.047	0.054					
110.4	24.208	35.071	23.64	0.63	0.382	0.040	0.041	0.039	0.036	0.048	0.056					
115.4	23.999	35.098	23.72	0.68	0.378	0.046	0.044	0.041	0.036	0.047	0.055					
120.4	23.705	35.084	23.80	0.89	0.382	0.055	0.047	0.042	0.038	0.048	0.053					
125.3	22.433	34.870	24.00	1.05	0.375	0.063	0.052	0.045	0.040	0.050	0.051					
130.2	22.151	35.090	24.25	1.14	0.375	0.066	0.054	0.048	0.042	0.050						
135.2	21.937	35.157	24.36	1.77	0.385	0.063	0.053	0.047	0.042	0.048						
140.1	21.833	35.168	24.40	1.47	0.383	0.057	0.049	0.044	0.040	0.044						
145.1	21.787	35.191	24.45	1.89	0.375	0.053	0.045	0.041	0.038	0.044						
150.1	21.598	35.201	24.49	1.89	0.374	0.050	0.042	0.039	0.035	0.041						
154.9	21.509	35.189	24.50	0.91	0.373	0.050	0.040	0.037	0.033	0.041						
160.2	21.191	35.181	24.52	0.88	0.373	0.052	0.041	0.037	0.032							
165.1	20.168	34.973	24.70	0.88	0.373	0.055	0.040	0.036	0.031							
170.0	19.449	34.856	24.80	0.71	0.371	0.054	0.039	0.034	0.029							
174.9	18.563	34.745	24.94	0.50	0.369	0.050	0.038	0.031	0.025							
180.0	17.538	34.654	25.12	0.46	0.367	0.047	0.033	0.028	0.023							
185.0	16.743	34.541	25.23	0.50	0.366	0.048	0.028	0.025	0.019							
189.8	15.277	34.383	25.44	0.47	0.364											
194.9	14.310	34.339	25.61	0.48	0.364											

Spectral Radiometer Data File : DISCO 2 UP CAST.MDAT.PR

page 1

Cast Label : RF-9-D1-84 LEG 2 STATION 2 1-MAR-84 1325 L UP CAST

Latitude: 18.0000N Longitude: 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens.	Fluor &T U.	Beam Atten (Clean water value=)	Diffuse Attenuation (M)									
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	
1.0	25.898	34.938	28.00	0.46	0.735				0.023	0.155	0.188	0.243	0.362	0.571	0.888
5.9	25.893	34.265	22.52	0.29	0.386	0.064	0.046	0.032	0.019	0.010	0.006	0.008	0.047	0.191	0.374
11.8	25.982	34.263	22.51	0.28	0.388	0.049	0.036	0.027	0.018	0.018	0.018	0.025	0.068	0.221	0.303
15.9	25.859	34.266	22.53	0.32	0.386	0.026	0.022	0.020	0.018	0.018	0.035	0.040	0.054	0.104	0.262
28.8	25.818	34.263	22.54	0.39	0.388	0.017	0.017	0.018	0.019	0.043	0.051	0.068	0.123	0.256	0.186
25.8	25.888	34.264	22.54	0.41	0.388	0.019	0.019	0.020	0.021	0.043	0.051	0.067	0.119	0.194	0.076
38.9	25.806	34.264	22.54	0.46	0.389	0.022	0.021	0.022	0.022	0.043	0.050	0.066	0.114		0.031
35.8	25.807	34.263	22.54	0.49	0.389	0.025	0.023	0.023	0.023	0.043	0.050	0.066	0.107		0.026
48.8	25.804	34.262	22.54	0.58	0.387	0.025	0.024	0.024	0.023	0.044	0.050	0.068	0.103		0.024
45.8	25.799	34.263	22.54	0.55	0.388	0.025	0.024	0.025	0.025	0.045	0.053	0.073	0.100		0.022
58.8	25.796	34.258	22.54	0.59	0.388	0.026	0.025	0.026	0.026	0.046	0.054	0.072	0.093		
55.7	25.793	34.251	22.54	0.63	0.386	0.029	0.028	0.028	0.027	0.047	0.058	0.072	0.089		
68.7	25.795	34.242	22.53	0.64	0.381	0.034	0.031	0.031	0.030	0.047	0.059	0.070	0.079		
65.6	25.772	34.237	22.53	0.63	0.367	0.047	0.039	0.036	0.035	0.054	0.062	0.073	0.077		
78.6	22.181	34.488	23.72	1.52	0.402	0.065	0.051	0.045	0.041	0.058	0.068	0.071	0.072		
75.6	28.395	34.417	24.22	1.93	0.448	0.085	0.063	0.053	0.047	0.063	0.064	0.075	0.073		
88.6	18.536	34.485	24.69	2.05	0.404	0.097	0.078	0.059	0.052	0.066	0.070	0.081			
85.6	16.512	34.389	25.16	1.68	0.390	0.104	0.078	0.061	0.055	0.068	0.074	0.086			
98.4	15.461	34.378	25.39	1.79	0.393	0.104	0.082	0.065	0.056	0.065	0.070	0.083			
95.5	14.884	34.494	25.88	1.78	0.389	0.106	0.081	0.066	0.057	0.062	0.066	0.080			
108.4	13.597	34.552	25.93	1.58	0.388	0.106	0.078	0.065	0.058	0.062	0.066	0.088			
105.3	13.442	34.569	25.97	1.38	0.375	0.108	0.080	0.064	0.058	0.064	0.069	0.082			
110.4	13.260	34.581	26.02	1.15	0.375	0.111	0.082	0.065	0.058	0.065	0.071				
115.4	12.849	34.609	26.12	1.03	0.373	0.110	0.081	0.064	0.056	0.064	0.067				
128.4	12.629	34.622	26.18	0.95	0.372	0.107	0.078	0.062	0.055	0.064	0.064				
125.4	12.358	34.656	26.26	0.79	0.371		0.076	0.060	0.053	0.063	0.062				
138.2	12.159	34.671	26.31	0.75	0.369		0.074	0.058	0.051	0.062					
135.2	11.969	34.678	26.34	0.66	0.364		0.072	0.056	0.058	0.061					
140.1	11.816	34.688	26.38	0.68	0.363		0.072	0.054	0.048	0.061					
145.1	11.634	34.698	26.42	0.58	0.364		0.071	0.053	0.047	0.061					
150.2	11.525	34.787	26.45	0.48	0.362		0.071	0.052	0.046						
155.1	11.522	34.715	26.46	0.39	0.362			0.052	0.045						
168.1	11.366	34.718	26.49	0.33	0.362				0.051	0.045					
165.1	11.272	34.710	26.50	0.33	0.362				0.058	0.045					
170.0	11.169	34.714	26.53	0.29	0.363				0.048	0.045					
174.8	11.067	34.706	26.54	0.34	0.362				0.047	0.044					
188.8	10.950	34.785	26.56	0.37	0.362				0.047	0.043					
184.9	10.876	34.700	26.57	0.38	0.362				0.050	0.042					
189.8	10.823	34.782	26.58	0.39	0.363				0.048						
194.9	10.735	34.697	26.59	0.39	0.364										
199.9	10.666	34.696	26.60	0.38	0.364										
204.9	10.632	34.691	26.60	0.38	0.364										
210.0	10.597	34.693	26.61	0.37	0.364										
214.8	10.550	34.698	26.62	0.37	0.364										
219.8	10.465	34.690	26.63	0.38	0.366										
224.7	10.487	34.691	26.64	0.39	0.367										
229.6	10.387	34.689	26.65	0.32	0.369										
234.7	10.333	34.694	26.66	0.42	0.369										

Spectral Radiometer Data File : DISCO 4 DN CAST.MDAT.PR

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Cast Label : RP-9-D1-84 LEG 2 STATION 4 3-MAR-84 1030 DOWN CAST

Latitude: 4.0000N Longitude: 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. g-T	Fluor U.	Beam Atten	Diffuse Attenuation (M)										
						410 nM	441 nM	465 nM	488 nM	520 nM	540 nM	560 nM	589 nM	625 nM	671 nM	694 nM
				Clean water value->		0.017	0.015	0.016	0.020	0.048	0.055	0.071	0.107	0.244	0.460	0.600
5.9	26.878	34.435	22.34	0.58	0.409											
11.0	26.838	34.420	22.34	0.75	0.421	0.023	0.023	0.023	0.023	0.043	0.049	0.065	0.122	0.289	0.338	0.351
15.9	26.808	34.427	22.36	0.88	0.422	0.026	0.026	0.025	0.024	0.044	0.050	0.066	0.119	0.268	0.213	0.186
20.9	26.790	34.438	22.36	0.94	0.424	0.028	0.028	0.027	0.026	0.045	0.051	0.067	0.119	0.225	0.097	0.067
25.9	26.782	34.434	22.37	1.07	0.422	0.038	0.038	0.029	0.028	0.047	0.052	0.067	0.118	0.162	0.036	0.027
30.8	26.769	34.436	22.37	1.24	0.418	0.032	0.031	0.030	0.029	0.048	0.053	0.068	0.115	0.099	0.023	0.024
35.8	26.757	34.440	22.38	1.31	0.419	0.034	0.033	0.032	0.031	0.049	0.055	0.072	0.112	0.068	0.021	0.025
40.8	26.741	34.440	22.38	1.38	0.419	0.035	0.035	0.033	0.032	0.050	0.056	0.076	0.108	0.039	0.022	0.024
45.7	26.712	34.454	22.40	1.49	0.418	0.037	0.036	0.035	0.034	0.051	0.057	0.076	0.102		0.023	0.028
50.8	26.673	34.468	22.43	1.71	0.415	0.039	0.038	0.037	0.035	0.051	0.060	0.073	0.094		0.024	0.019
55.7	26.601	34.473	22.45	1.78	0.412	0.048	0.048	0.038	0.036	0.054	0.065	0.075	0.090		0.025	
60.7	26.466	34.585	22.52	1.82	0.409	0.041	0.048	0.038	0.036	0.055	0.064	0.074	0.088		0.025	
65.7	26.392	34.539	22.57	2.02	0.412	0.044	0.048	0.037	0.035	0.055	0.060	0.071	0.070		0.025	
70.6	26.362	34.553	22.59	2.13	0.404	0.051	0.041	0.038	0.036	0.053	0.057	0.068	0.059		0.025	
75.5	26.188	34.592	22.70	2.31	0.408	0.058	0.046	0.041	0.038	0.054	0.059	0.070	0.055		0.030	
80.5	25.688	34.686	22.90	2.23	0.397	0.063	0.055	0.046	0.042	0.056	0.062	0.071	0.058			
85.6	24.254	34.633	23.44	2.25	0.389	0.066	0.060	0.051	0.046	0.057	0.063	0.071				
90.4	23.250	34.793	23.71	2.21	0.389	0.069	0.060	0.053	0.048	0.056	0.062	0.068				
95.5	22.554	34.783	23.98	1.97	0.385	0.073	0.057	0.053	0.049	0.056	0.063	0.066				
100.4	20.968	34.761	24.33	1.64	0.388	0.078	0.059	0.051	0.048	0.057	0.065	0.066				
105.4	20.298	34.732	24.48	1.46	0.375	0.081	0.068	0.050	0.047	0.057	0.068	0.063				
110.4	18.946	34.658	24.79	1.14	0.373	0.082	0.060	0.049	0.045	0.057	0.069	0.060				
115.4	18.089	34.721	25.04	0.91	0.372	0.083	0.059	0.047	0.043	0.055	0.069					
120.4	16.818	34.588	25.25	0.73	0.369	0.085	0.059	0.046	0.042	0.054						
125.4	15.719	34.603	25.51	0.56	0.364	0.086	0.058	0.045	0.041	0.054						
130.3	15.243	34.634	25.64	0.49	0.364	0.084	0.057	0.044	0.039	0.052						
135.2	14.883	34.595	25.71	0.40	0.364		0.055	0.043	0.038	0.050						
140.1	13.887	34.548	25.86	0.36	0.361		0.055	0.042	0.037	0.048						
145.1	13.117	34.549	26.02	0.33	0.360		0.056	0.042	0.037	0.047						
150.2	12.473	34.628	26.21	0.30	0.361		0.057	0.043	0.037	0.045						
155.0	11.955	34.594	26.28	0.30	0.360		0.057	0.042	0.037	0.043						
160.1	11.580	34.547	26.32	0.28	0.360		0.056	0.042	0.037	0.039						
165.1	11.186	34.581	26.42	0.29	0.360		0.055	0.042	0.036							
170.0	11.017	34.575	26.44	0.28	0.360		0.057	0.043	0.036							
175.0	10.886	34.577	26.48	0.29	0.362			0.042	0.036							
180.0	10.682	34.594	26.52	0.29	0.362			0.042	0.037							
185.0	10.522	34.575	26.53	0.29	0.372			0.043	0.037							
189.9	10.446	34.599	26.57	0.29	0.369			0.044	0.036							
194.9	10.289	34.595	26.59	0.30	0.373			0.043	0.036							
199.9	10.141	34.601	26.62	0.28	0.375			0.043	0.037							
204.9	10.072	34.606	26.64	0.29	0.381				0.037							
210.0	10.023	34.608	26.64	0.29	0.386				0.038							
214.9	9.976	34.608	26.65	0.28	0.391				0.040							
219.8	9.930	34.615	26.67	0.29	0.395				0.040							
224.8	9.942	34.635	26.68	0.29	0.399											
229.7	9.983	34.625	26.69	0.28	0.401											
234.6	9.884	34.647	26.70	0.29	0.405											

Cast Label : RP-9-01-84 LEG 2 STATION 5 AT EQUATOR 4-MAR-84 1250L ON

Latitude: 0.0000N Longitude: 150.0000W

Z-eve M	Temp deg C	Sal. ppt	Dens. g-T	Fluor U.	Beam Atten	Diffuse Attenuation (M)										
						410 nm	441 nm	465 nm	488 nm	528 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm
1.1	26.121	34.935	22.95	1.00	0.465											
6.0	26.094	34.931	22.96	1.20	0.455											
11.0	25.748	34.929	23.06	1.00	0.474	0.034	0.036	0.034	0.031	0.047	0.052	0.067	0.125	0.289	0.343	0.394
15.9	25.676	34.938	23.09	2.24	0.479	0.037	0.040	0.037	0.034	0.049	0.054	0.070	0.123	0.281	0.341	0.344
20.9	25.605	34.945	23.12	2.59	0.484	0.041	0.043	0.040	0.036	0.051	0.055	0.070	0.122	0.258	0.335	0.384
25.8	25.468	34.939	23.16	2.97	0.487	0.045	0.047	0.043	0.039	0.052	0.057	0.071	0.122	0.196	0.353	0.348
30.8	25.392	34.958	23.22	3.43	0.488	0.048	0.050	0.046	0.041	0.054	0.058	0.072	0.122	0.135	0.333	0.333
35.8	25.182	34.984	23.28	3.83	0.486	0.051	0.052	0.048	0.043	0.055	0.059	0.074	0.118	0.082	0.032	0.035
40.8	24.958	34.985	23.35	4.20	0.482	0.055	0.056	0.051	0.045	0.056	0.060	0.077	0.113		0.034	0.038
45.8	24.669	35.033	23.47	4.68	0.488	0.058	0.059	0.054	0.048	0.058	0.062	0.080	0.110		0.036	
50.7	24.413	35.031	23.55	5.03	0.474	0.067	0.063	0.057	0.051	0.060	0.067	0.082	0.107		0.041	
55.7	24.184	35.071	23.65	5.57	0.471	0.074	0.069	0.061	0.055	0.065	0.072	0.082	0.102		0.044	
60.7	23.983	35.027	23.70	5.94	0.471	0.079	0.077	0.066	0.059	0.071	0.075	0.084	0.100		0.051	
65.6	23.534	35.001	23.78	6.21	0.466	0.079	0.080	0.071	0.062	0.073	0.074	0.085	0.093			
70.6	23.257	35.039	23.89	6.13	0.460	0.088	0.078	0.072	0.065	0.071	0.073	0.084	0.088			
75.5	22.720	35.075	24.08	5.85	0.456	0.082	0.076	0.071	0.066	0.070	0.074		0.084			
80.5	22.386	35.137	24.24	5.99	0.442	0.082	0.074	0.066	0.063	0.070	0.076		0.085			
85.6	21.318	35.283	24.63	4.56	0.423	0.088	0.069	0.062	0.058	0.069	0.076		0.084			
90.5	20.889	35.175	24.68	3.62	0.418	0.076	0.062	0.055	0.052	0.065	0.073		0.079			
95.5	20.181	35.322	24.96	2.96	0.402	0.073	0.057	0.050	0.047	0.068	0.070		0.073			
100.4	19.719	35.287	25.06	2.60	0.402	0.070	0.053	0.046	0.043	0.057	0.068		0.070			
105.4	18.338	35.165	25.32	2.04	0.397	0.070	0.050	0.043	0.041	0.055	0.066					
110.3	18.024	35.155	25.39	1.67	0.394	0.070	0.048	0.040	0.038	0.053	0.069					
115.4	17.867	35.137	25.41	1.33	0.389	0.072	0.048	0.038	0.036	0.054	0.070					
120.3	16.982	34.955	25.51	1.24	0.389		0.046	0.036	0.034	0.053	0.067					
125.4	16.608	34.992	25.61	1.21	0.386		0.041	0.034	0.032	0.051						
130.2	16.576	35.061	25.66	0.97	0.382		0.040	0.032	0.030	0.047						
135.2	16.398	35.094	25.73	0.81	0.378		0.041	0.032	0.030	0.048						
140.1	16.103	34.955	25.69	0.73	0.377		0.043	0.033	0.031	0.051						
145.1	15.689	35.028	25.84	0.63	0.375		0.042	0.034	0.031	0.052						
150.1	15.419	35.006	25.89	0.59	0.373		0.040	0.034	0.031							
155.1	15.200	34.972	25.91	0.58	0.372			0.034	0.029							
160.1	15.196	35.063	25.98	0.54	0.371			0.033	0.027							
165.1	14.833	34.783	25.84	0.36	0.370			0.029	0.026							
170.1	14.254	34.896	26.06	0.46	0.371			0.027	0.027							
174.9	14.076	34.891	26.09	0.47	0.369			0.029	0.027							
180.0	13.928	34.872	26.11	0.49	0.370			0.033	0.028							
185.0	13.798	34.864	26.13	0.52	0.369			0.033	0.028							
189.9	13.645	34.892	26.18	0.51	0.370			0.035	0.030							
195.0	13.574	34.912	26.21	0.03	0.370				0.032							
199.9	13.516	34.865	26.19	0.48	0.371				0.035							
204.9	13.172	34.813	26.22	0.49	0.372				0.038							
210.0	13.827	34.929	26.34	0.08	0.373											
214.9	12.922	34.990	26.40	0.01	0.375											
219.8	12.892	34.946	26.39	0.01	0.375											
224.7	12.671	34.852	26.35	0.49	0.374											
229.7	12.568	34.962	26.45	0.04	0.375											
234.7	12.496	34.939	26.45	-0.01	0.374											

Cast Label : RP-9-D1-84 LEG 2 STA 6 2 DEG S 5-MAR-84 1200 UP CAST

Latitude: 2.0000S Longitude: 156.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &T	Fluor U.	Beam Atten	Diffuse Attenuation (/M)										
						410 nM Clean water value->	441 nM	465 nM	488 nM	528 nM	540 nM	568 nM	589 nM	625 nM	671 nM	694 nM
1.1	26.325	34.917	22.88	1.02	0.446	0.017	0.015	0.016	0.020	0.048	0.055	0.071	0.107	0.244	0.468	0.600
6.0	26.187	34.901	22.91	1.24	0.445											
11.0	26.126	34.912	22.93	1.49	0.453	0.031	0.030	0.030	0.029	0.047	0.053	0.068	0.124	0.284	0.372	0.411
15.9	26.183	34.908	22.94	1.88	0.452	0.031	0.030	0.029	0.028	0.046	0.051	0.067	0.119	0.277	0.289	0.274
20.9	26.091	34.904	22.94	2.03	0.454	0.031	0.031	0.029	0.028	0.045	0.051	0.066	0.116	0.254	0.363	0.423
25.9	26.084	34.908	22.94	2.21	0.458	0.032	0.031	0.030	0.028	0.046	0.052	0.067	0.116	0.215	0.369	0.442
30.8	26.082	34.908	22.94	2.46	0.458	0.033	0.033	0.031	0.030	0.047	0.053	0.067	0.115	0.162	0.331	0.425
35.8	26.078	34.905	22.94	2.81	0.459	0.035	0.034	0.032	0.030	0.048	0.053	0.067	0.112		0.227	0.325
40.8	26.077	34.912	22.95	2.57	0.448	0.035	0.035	0.033	0.031	0.048	0.054	0.069	0.107		0.225	0.324
45.7	26.066	34.909	22.95	2.81	0.456	0.036	0.035	0.033	0.032	0.048	0.053	0.072	0.103		0.228	0.327
50.8	26.066	34.904	22.95	2.78	0.443	0.037	0.036	0.034	0.032	0.049	0.054	0.074	0.099		0.229	0.326
55.7	26.068	34.911	22.95	2.94	0.441	0.037	0.036	0.035	0.033	0.049	0.056	0.072	0.094		0.233	
60.7	26.050	34.902	22.95	3.25	0.438	0.038	0.037	0.035	0.033	0.049	0.059	0.070	0.088		0.229	
65.6	26.048	34.909	22.96	3.30	0.435	0.038	0.037	0.035	0.034	0.050	0.068	0.078	0.082		0.228	
70.6	26.001	34.898	22.96	3.56	0.432	0.039	0.037	0.036	0.034	0.053	0.059	0.078	0.076		0.228	
75.6	25.946	34.900	22.98	3.48	0.423	0.044	0.037	0.036	0.034	0.055	0.057	0.078	0.071			
80.6	25.844	34.877	23.00	3.59	0.418	0.047	0.038	0.036	0.035	0.053	0.058	0.078	0.069			
85.5	25.422	35.267	23.42	3.48	0.418	0.049	0.041	0.038	0.036	0.052	0.057	0.069				
90.4	24.329	35.411	23.86	3.45	0.408	0.051	0.047	0.048	0.037	0.053	0.059	0.071				
95.5	23.697	35.426	24.06	3.32	0.407	0.053	0.050	0.043	0.039	0.053	0.068	0.071				
100.5	22.988	35.448	24.31	3.27	0.483	0.056	0.058	0.046	0.041	0.054	0.068	0.072				
105.3	21.435	35.484	24.75	3.18	0.397	0.059	0.049	0.048	0.044	0.053	0.058	0.078				
110.4	20.168	35.365	25.00	3.14	0.398	0.065	0.053	0.048	0.045	0.055	0.060	0.071				
115.4	18.270	35.250	25.48	2.84	0.397	0.071	0.056	0.049	0.046	0.056	0.061	0.073				
120.3	16.997	35.191	25.66	2.22	0.393	0.076	0.058	0.050	0.046	0.056	0.061					
125.4	16.123	35.147	25.84	1.78	0.389	0.077	0.058	0.049	0.045	0.057	0.062					
130.3	15.161	35.188	26.02	1.68	0.386	0.078	0.057	0.048	0.044	0.056	0.061					
135.3	15.023	35.083	26.03	1.38	0.383	0.078	0.057	0.047	0.043	0.055	0.059					
140.2	14.231	35.018	26.15	1.22	0.381	0.079	0.057	0.046	0.042	0.054	0.056					
145.1	13.692	34.969	26.23	1.03	0.388	0.078	0.057	0.046	0.041	0.053	0.053					
150.1	13.536	34.958	26.25	0.98	0.378	0.076	0.056	0.045	0.040	0.054						
155.0	13.486	34.951	26.28	0.88	0.376		0.055	0.044	0.039	0.052						
160.2	13.325	34.944	26.29	0.88	0.374		0.053	0.042	0.037	0.050						
165.2	13.195	34.938	26.38	0.67	0.373		0.053	0.041	0.036							
170.0	13.079	34.928	26.32	0.66	0.378		0.052	0.041	0.035							
175.0	13.019	34.916	26.33	0.62	0.373		0.052	0.041	0.035							
180.0	12.961	34.915	26.34	0.58	0.378		0.051	0.040	0.034							
184.9	12.941	34.913	26.34	0.59	0.369			0.048	0.034							
189.9	12.894	34.909	26.35	0.58	0.369			0.040	0.034							
194.9	12.861	34.909	26.35	0.60	0.369			0.040	0.033							
199.9	12.829	34.908	26.36	0.58	0.368			0.034	0.033							
205.0	12.771	34.902	26.37	0.56	0.369			0.037	0.033							
210.0	12.751	34.901	26.37	0.57	0.378				0.032							
214.9	12.785	34.899	26.38	0.56	0.369				0.032							
219.8	12.637	34.895	26.39	0.60	0.378				0.032							
224.7	12.575	34.894	26.40	0.60	0.368											
229.7	12.542	34.887	26.40	0.60	0.378											
234.7	12.481	34.867	26.41	0.59	0.378											

Cast Label : RP-9-D1-84 LEG 2 STA 7 6 DEG S 6-MAR-84 1330 L DN CAST

Latitude: 6.0000S Longitude: 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens.	Fluor &T	Bean U.	Atten Clean water value->	Diffuse Attenuation (/M)										
							410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm
1.0	29.598	35.194	22.02	1.88	0.536		0.033	0.032									
6.0	29.391	35.303	22.17	0.59	0.412		0.034	0.032									
11.0	29.192	35.338	22.26	0.71	0.417	0.024	0.025	0.026	0.026	0.048	0.054	0.078	0.128	0.293	0.387	0.432	
15.9	29.168	35.318	22.25	0.83	0.420	0.024	0.025	0.025	0.025	0.046	0.053	0.069	0.123	0.281	0.387	0.296	
20.8	29.157	35.314	22.25	0.92	0.419	0.024	0.024	0.024	0.024	0.046	0.052	0.068	0.120	0.252	0.181	0.141	
25.9	29.149	35.316	22.26	0.97	0.418	0.024	0.025	0.024	0.024	0.045	0.051	0.067	0.119	0.196	0.075	0.048	
30.8	29.110	35.304	22.26	1.07	0.421	0.027	0.026	0.026	0.025	0.046	0.052	0.067	0.116	0.132	0.029	0.027	
35.8	29.018	35.258	22.26	1.17	0.426	0.031	0.029	0.028	0.027	0.046	0.052	0.066	0.110	0.077	0.026		
40.7	28.884	35.267	22.31	1.16	0.421	0.034	0.032	0.030	0.029	0.048	0.053	0.069	0.105	0.058	0.038		
45.8	28.848	35.283	22.33	1.21	0.416	0.036	0.033	0.031	0.030	0.049	0.055	0.074	0.103	0.038	0.027		
50.8	28.842	35.284	22.34	1.29	0.416	0.038	0.035	0.033	0.031	0.050	0.056	0.075	0.096				
55.7	28.825	35.288	22.35	1.42	0.415	0.041	0.038	0.035	0.033	0.058	0.059	0.074	0.098				
60.6	28.734	35.292	22.38	1.62	0.421	0.045	0.042	0.038	0.036	0.052	0.062	0.072	0.081				
65.6	28.668	35.306	22.43	2.17	0.425	0.049	0.046	0.042	0.038	0.055	0.063	0.072	0.076				
70.5	28.398	35.294	22.49	3.65	0.431	0.054	0.058	0.045	0.041	0.058	0.062	0.072	0.068				
75.4	27.761	35.354	22.75	4.99	0.433	0.059	0.052	0.048	0.043	0.059	0.061	0.072	0.065		0.028		
80.6	27.288	35.277	22.87	5.43	0.429	0.062	0.054	0.049	0.045	0.058	0.062	0.072	0.068		0.041		
85.6	27.114	35.311	22.92	5.48	0.424	0.062	0.059	0.051	0.046	0.059	0.064	0.073	0.055				
90.5	26.952	35.396	23.04	5.22	0.419	0.061	0.061	0.053	0.048	0.059	0.065	0.072					
95.5	26.753	35.501	23.18	4.83	0.412	0.062	0.059	0.055	0.050	0.058	0.064	0.069					
100.4	26.342	35.574	23.37	4.59	0.485	0.062	0.056	0.054	0.050	0.057	0.064	0.066					
105.3	25.982	35.628	23.54	4.26	0.482	0.063	0.056	0.052	0.050	0.057	0.066	0.065					
110.4	25.815	35.767	23.68	3.68	0.399	0.063	0.054	0.049	0.047	0.057	0.067	0.062					
115.4	25.516	35.985	23.87	3.21	0.396	0.061	0.052	0.047	0.045	0.056	0.068	0.057					
120.3	24.452	36.088	24.34	2.43	0.387	0.059	0.048	0.044	0.042	0.056	0.069						
125.4	24.818	36.171	24.53	2.82	0.386	0.058	0.046	0.041	0.048	0.055	0.074						
130.3	23.288	35.988	24.56	1.78	0.381	0.057	0.044	0.039	0.036	0.053	0.072						
135.2	22.467	35.986	24.78	1.47	0.376	0.058	0.043	0.038	0.037	0.052	0.052						
140.1	21.468	35.786	24.97	1.28	0.374	0.059	0.042	0.037	0.036	0.052							
145.2	21.158	35.800	25.06	1.23	0.373	0.059	0.041	0.036	0.035	0.052							
150.1	20.734	35.538	24.97	1.18	0.369	0.056	0.048	0.035	0.034	0.052							
155.0	20.071	35.528	25.15	0.99	0.367	0.054	0.048	0.035	0.034	0.053							
160.2	19.339	35.462	25.29	0.91	0.365	0.055	0.041	0.035	0.033								
165.2	18.625	35.291	25.34	0.83	0.363		0.048	0.035	0.032								
170.0	17.993	35.412	25.59	0.77	0.362		0.039	0.034	0.032								
175.0	17.685	35.247	25.56	0.73	0.362		0.048	0.034	0.031								
180.0	17.357	35.272	25.64	0.68	0.361		0.048	0.034	0.031								
185.0	16.929	34.975	25.52	0.63	0.361		0.039	0.034	0.031								
189.9	16.000	35.121	25.84	0.60	0.368		0.038	0.035	0.032								
195.0	15.781	35.854	25.86	0.61	0.361		0.037	0.035	0.032								
199.8	15.289	35.033	25.94	0.59	0.368		0.036	0.034	0.032								
204.9	14.928	35.042	26.02	0.59	0.368		0.033	0.032									
210.0	14.112	34.918	26.18	0.58	0.358		0.034	0.032									
214.9	13.881	34.942	26.19	0.56	0.359		0.033	0.033									
219.8	13.498	34.917	26.23	0.54	0.359		0.034	0.032									
224.7	13.131	34.891	26.28	0.52	0.358		0.035	0.032									
229.7	13.028	34.894	26.31	0.52	0.357		0.039	0.032									
234.7	12.773	34.879	26.35	0.54	0.358		0.034										

Spectral Radiometer Data File : DISCO 8 DN CAST.MDAT.PR

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Cast Label : RP-9-D1-84 LEG 2 STA 8 10 DEG S 7-MAR-84 1400 L DN CAST

Latitude: 10.00005 Longitude: 150.00004

7-ave M	Temp deg C	Sal. ppt	Dens. g-T	Fluor V.	Beam Atten	Diffuse Attenuation (/M)										
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm
				Clean water value->		0.017	0.015	0.016	0.020	0.048	0.055	0.071	0.107	0.244	0.460	0.688
1.0	30.414	33.062	20.14	1.62	0.495											
6.0	30.151	35.406	21.99	0.55	0.396											
10.9	30.026	35.407	22.03	0.54	0.397	0.016	0.017	0.020	0.022	0.046	0.053	0.078	0.129	0.298	0.392	0.431
15.9	30.006	35.406	22.04	0.58	0.397	0.013	0.014	0.017	0.019	0.044	0.051	0.068	0.124	0.285	0.307	0.285
20.9	30.001	35.408	22.04	0.63	0.397	0.011	0.012	0.015	0.017	0.042	0.049	0.066	0.120	0.247	0.183	0.135
25.8	29.890	35.434	22.10	0.57	0.394	0.014	0.014	0.016	0.017	0.041	0.048	0.065	0.117	0.182	0.078	0.047
30.8	29.698	35.466	22.19	0.54	0.391	0.016	0.016	0.017	0.019	0.042	0.049	0.064	0.112	0.198	0.025	0.028
35.9	29.553	35.458	22.22	0.61	0.393	0.028	0.019	0.020	0.021	0.043	0.050	0.066	0.108	0.157	0.010	0.007
40.8	29.219	35.500	22.36	0.70	0.395	0.025	0.022	0.022	0.022	0.043	0.049	0.067	0.108	0.135	0.010	
45.7	28.868	35.545	22.53	0.76	0.397	0.029	0.025	0.024	0.024	0.045	0.051	0.071	0.096	0.132	0.011	
50.8	28.648	35.558	22.61	0.92	0.397	0.033	0.029	0.027	0.026	0.046	0.053	0.071	0.090	0.138	0.008	
55.7	28.256	35.567	22.74	1.04	0.397	0.037	0.032	0.030	0.029	0.048	0.057	0.072	0.085		0.004	
60.7	27.955	35.621	22.88	1.27	0.400	0.041	0.035	0.032	0.031	0.048	0.060	0.070	0.078			
65.6	27.652	35.624	22.99	1.68	0.409	0.042	0.036	0.033	0.032	0.050	0.060	0.070	0.072			
70.5	27.515	35.622	23.03	2.11	0.414	0.041	0.037	0.034	0.032	0.053	0.058	0.068	0.062		0.002	
75.5	27.375	35.553	23.02	2.49	0.413	0.041	0.038	0.035	0.033	0.053	0.057	0.067	0.055		0.009	
80.5	27.180	35.683	23.12	2.89	0.417	0.041	0.039	0.036	0.034	0.052	0.056	0.066	0.052		0.016	
85.6	27.007	35.692	23.24	3.11	0.419	0.046	0.040	0.037	0.035	0.051	0.057	0.066	0.050		0.024	
90.5	26.861	35.713	23.31	3.38	0.418	0.051	0.042	0.039	0.036	0.051	0.058	0.066			0.038	
95.5	26.768	35.814	23.41	3.44	0.415	0.054	0.044	0.041	0.038	0.053	0.068	0.066				
100.4	26.677	35.897	23.50	3.59	0.414	0.053	0.048	0.043	0.040	0.055	0.062	0.066				
105.4	26.679	36.018	23.59	3.47	0.409	0.054	0.051	0.044	0.041	0.055	0.062	0.064				
110.4	26.683	36.061	23.63	3.51	0.410	0.055	0.053	0.047	0.043	0.055	0.062	0.062				
115.3	26.593	36.068	23.66	3.60	0.408	0.056	0.051	0.049	0.045	0.054	0.061	0.057				
120.4	26.337	36.035	23.72	3.63	0.408	0.060	0.052	0.050	0.046	0.055	0.063	0.053				
125.4	25.773	36.026	23.89	3.60	0.394	0.062	0.054	0.048	0.046	0.054	0.064					
130.3	25.403	36.125	24.08	3.43	0.392	0.063	0.054	0.048	0.045	0.054	0.066					
135.2	25.219	36.188	24.17	3.35	0.390	0.062	0.053	0.047	0.044	0.053	0.067					
140.1	24.910	36.157	24.25	3.84	0.388	0.061	0.051	0.046	0.043	0.052						
145.2	24.486	36.224	24.43	2.61	0.387	0.068	0.049	0.045	0.042	0.052						
150.1	24.408	36.238	24.46	2.45	0.386	0.057	0.047	0.043	0.041	0.052						
155.0	24.113	36.282	24.52	2.87	0.382	0.054	0.044	0.040	0.039	0.051						
160.2	23.714	36.296	24.71	1.60	0.376	0.053	0.041	0.037	0.036	0.049						
165.1	23.282	36.120	24.71	1.25	0.372	0.052	0.038	0.035	0.034	0.048						
170.1	22.987	36.068	24.75	1.86	0.368	0.047	0.036	0.033	0.033							
175.0	22.652	36.054	24.84	0.93	0.368	0.045	0.035	0.032	0.031							
180.0	22.198	35.929	24.67	0.77	0.364	0.047	0.034	0.031	0.030							
185.0	21.755	35.895	24.97	0.68	0.362		0.033	0.030	0.030							
189.9	21.588	35.815	24.96	0.62	0.361		0.033	0.030	0.029							
194.9	21.344	35.858	25.06	0.60	0.351		0.032	0.030	0.029							
199.8	21.077	35.793	25.08	0.53	0.362		0.032	0.030	0.029							
204.8	20.878	35.768	25.12	0.51	0.31		0.035	0.031	0.029							
209.9	20.448	35.639	25.13	0.46	0.368		0.035	0.032	0.029							
214.9	20.068	35.658	25.25	0.44	0.360		0.035	0.033	0.030							
219.7	19.813	35.623	25.29	0.44	0.358		0.032	0.032	0.031							
224.7	19.101	35.438	25.33	0.41	0.359		0.036	0.032	0.032							
229.7	17.827	35.330	25.57	0.41	0.358		0.041	0.035	0.032							
234.7	17.356	35.090	25.58	0.39	0.358		0.035	0.033								

Spectral Radiometer Data File : DISCO 8 UP CAST.MDAT.PR

page 1

Cast Label : RP-9-D1-84 LEG 2 STA 8 10 DEG S 7-MAR-84 1400 L UP CAST

Latitude: 10.0000S Longitude: 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens. &-T	Fluor V.	Beam Atten	Diffuse Attenuation (/M)																
						410 nm	441 nm	465 nm	488 nm	520 nm	540 nm	560 nm	589 nm	625 nm	671 nm	694 nm						
Clean water value->												0.017	0.015	0.016	0.020	0.048	0.055	0.071	0.107	0.244	0.460	0.600
1.1	38.358	35.394	21.91	0.51	0.488					0.034	0.033											
5.9	38.346	35.413	21.93	0.50	0.398					0.034	0.033											
10.9	38.064	35.409	22.02	0.59	0.409	0.038	0.033	0.030	0.027	0.043	0.048	0.062	0.116	0.285	0.375	0.399						
15.9	38.008	35.408	22.04	0.63	0.409	0.020	0.021	0.024	0.025	0.050	0.057	0.074	0.130	0.292	0.310	0.274						
20.9	29.994	35.409	22.04	0.69	0.408	0.020	0.020	0.022	0.023	0.047	0.054	0.071	0.125	0.254	0.181	0.118						
25.8	29.953	35.409	22.06	0.68	0.403	0.018	0.018	0.028	0.021	0.045	0.052	0.068	0.120	0.194	0.085	0.045						
30.9	29.788	35.443	22.14	0.68	0.397	0.018	0.018	0.019	0.020	0.044	0.051	0.066	0.115	0.123	0.039	0.029						
35.8	29.634	35.478	22.22	0.68	0.397	0.020	0.019	0.028	0.021	0.043	0.058	0.066	0.107	0.069	0.019	0.021						
40.9	29.433	35.479	22.29	0.76	0.398	0.023	0.021	0.022	0.023	0.045	0.052	0.078	0.104			0.014						
45.8	29.177	35.511	22.40	0.78	0.405	0.026	0.024	0.024	0.025	0.046	0.053	0.073	0.099			0.016						
50.7	28.751	35.542	22.56	0.94	0.407	0.030	0.027	0.026	0.026	0.047	0.054	0.073	0.092			0.016						
55.7	28.496	35.564	22.66	1.04	0.418	0.033	0.029	0.028	0.027	0.047	0.057	0.071	0.084			0.009						
60.7	28.126	35.608	22.82	1.30	0.409	0.038	0.032	0.038	0.029	0.047	0.059	0.069	0.076			0.002						
65.6	27.787	35.629	22.95	1.67	0.418	0.048	0.035	0.032	0.038	0.048	0.058	0.069	0.067									
70.5	27.542	35.623	23.02	2.23	0.419	0.042	0.036	0.033	0.031	0.052	0.057	0.068	0.068									
75.6	27.474	35.628	23.04	2.61	0.423	0.042	0.038	0.035	0.033	0.053	0.056	0.067	0.059									
80.5	27.141	35.642	23.16	3.18	0.429	0.043	0.048	0.037	0.034	0.053	0.057	0.068	0.056			0.007						
85.5	26.926	35.781	23.28	3.32	0.428	0.046	0.041	0.038	0.036	0.052	0.057	0.067	0.049			0.017						
90.4	24.769	35.762	23.37	3.37	0.425	0.052	0.043	0.048	0.037	0.053	0.058	0.067										
95.5	26.673	35.805	23.50	3.57	0.423	0.055	0.045	0.042	0.038	0.053	0.053	0.059	0.066									
100.4	26.652	35.969	23.57	3.54	0.419	0.056	0.048	0.043	0.048	0.055	0.061	0.068										
105.4	26.683	36.050	23.62	3.57	0.418	0.055	0.052	0.044	0.042	0.055	0.068	0.066										
110.4	26.525	36.074	23.69	3.61	0.415	0.056	0.053	0.047	0.044	0.055	0.059	0.066										
115.4	26.227	36.081	23.79	3.53	0.409	0.057	0.052	0.049	0.045	0.054	0.059	0.063										
120.3	25.948	36.070	23.87	3.43	0.406	0.060	0.052	0.058	0.046	0.055	0.061											
125.3	25.464	36.130	24.06	3.39	0.397	0.062	0.054	0.048	0.046	0.054	0.061											
130.3	25.322	36.141	24.11	3.12	0.397	0.062	0.054	0.048	0.045	0.055	0.062											
135.1	24.980	36.169	24.25	2.85	0.397	0.061	0.052	0.047	0.044	0.054	0.055											
140.1	24.529	36.230	24.42	2.52	0.397	0.059	0.051	0.046	0.043	0.054	0.051											
145.1	24.417	36.232	24.46	2.26	0.397	0.058	0.049	0.045	0.043	0.053												
150.1	24.278	36.228	24.50	1.83	0.392	0.057	0.047	0.043	0.041	0.053												
155.0	24.036	36.223	24.56	1.52	0.388	0.053	0.044	0.048	0.039	0.052												
160.2	23.557	36.193	24.68	1.01	0.382	0.048	0.040	0.037	0.037	0.049												
165.1	23.150	36.137	24.76	0.97	0.378	0.047	0.038	0.035	0.035	0.045												
170.1	22.865	36.098	24.81	0.83	0.375	0.047	0.036	0.034	0.033													
175.0	22.565	36.055	24.86	0.69	0.373	0.047	0.035	0.032	0.032													
180.1	22.061	35.972	24.94	0.64	0.378	0.048	0.035	0.031	0.031													
184.9	21.659	35.910	25.01	0.59	0.368		0.035	0.032	0.031													
189.9	21.370	35.659	25.05	0.55	0.368		0.035	0.032	0.031													
195.0	21.303	35.846	25.06	0.53	0.367		0.034	0.032	0.031													
199.9	21.073	35.889	25.09	0.58	0.368		0.034	0.032	0.031													
204.8	20.691	35.746	25.15	0.48	0.365		0.035	0.033	0.031													
210.0	20.268	35.488	25.21	0.44	0.364		0.037	0.032	0.031													
214.9	19.877	35.616	25.27	0.43	0.362		0.037	0.032	0.031													
219.8	19.465	35.530	25.31	0.41	0.362		0.037	0.033	0.031													
224.7	18.320	35.367	25.48	0.39	0.362		0.034	0.034	0.031													
229.7	17.510	35.289	25.62	0.39	0.360			0.035	0.030													
234.7	16.571	35.190	25.76	0.39	0.359			0.038	0.029													

Cast Label : RP-9-D1-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1318 L DN CAST

Latitude: 15.0000S Longitude: 158.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens.	Fluor A-T	Beam U.	Atten Clean water value->	Diffuse Attenuation (M)									
							410 nM	441 nM	465 nM	488 nM	520 nM	540 nM	560 nM	589 nM	625 nM	671 nM
1.0	30.061	29.706	17.70	2.14	1.114		0.015	0.025	0.026	0.053	0.053	0.061	0.096	0.209	0.285	0.335
6.0	30.011	35.548	22.14	0.44	0.409	0.011	0.016	0.020	0.022	0.048	0.056	0.072	0.132	0.297	0.420	0.504
10.9	29.939	35.535	22.16	0.43	0.412	0.010	0.013	0.016	0.019	0.045	0.053	0.070	0.128	0.298	0.395	0.430
15.9	29.913	35.538	22.17	0.45	0.412	0.008	0.011	0.014	0.016	0.042	0.050	0.067	0.123	0.282	0.312	0.283
20.8	29.911	35.539	22.17	0.47	0.411	0.009	0.010	0.013	0.015	0.046	0.047	0.063	0.118	0.241	0.187	
25.9	29.906	35.542	22.17	0.48	0.412	0.011	0.012	0.014	0.016	0.046	0.047	0.063	0.115	0.181	0.082	
30.8	29.901	35.541	22.17	0.51	0.412	0.014	0.015	0.017	0.018	0.041	0.048	0.063	0.111	0.109	0.022	
35.8	29.785	35.578	22.24	0.59	0.428	0.017	0.018	0.019	0.020	0.042	0.048	0.066	0.106	0.061	0.009	
40.8	29.656	35.564	22.27	0.86	0.433	0.018	0.019	0.020	0.022	0.042	0.049	0.068	0.100		0.018	
45.8	29.585	35.566	22.30	0.85	0.425	0.019	0.020	0.021	0.022	0.042	0.050	0.069	0.094		0.017	
50.8	29.437	35.598	22.37	0.84	0.423	0.020	0.020	0.021	0.022	0.043	0.053	0.068	0.087			
55.7	29.187	35.667	22.51	0.74	0.413	0.022	0.021	0.022	0.023	0.043	0.055	0.067	0.081			
60.6	28.942	35.775	22.67	0.68	0.410	0.023	0.022	0.023	0.024	0.045	0.056	0.067	0.076			
65.6	28.617	35.831	22.82	0.70	0.410	0.026	0.024	0.024	0.025	0.047	0.054	0.066	0.067			
70.5	28.032	36.030	23.17	0.82	0.412	0.029	0.027	0.026	0.026	0.049	0.053	0.064	0.059			
75.6	27.808	35.994	23.22	0.92	0.413	0.033	0.030	0.028	0.028	0.048	0.053	0.063	0.055			
80.5	27.539	36.034	23.33	0.99	0.411	0.037	0.032	0.030	0.029	0.048	0.054	0.064	0.053			
85.6	27.163	36.014	23.44	1.15	0.411	0.040	0.035	0.032	0.030	0.048	0.055	0.064	0.047			
90.5	26.948	36.083	23.56	1.27	0.410	0.041	0.036	0.033	0.031	0.048	0.055	0.061				
95.5	26.685	36.150	23.72	1.29	0.409	0.046	0.037	0.033	0.031	0.048	0.055	0.059				
100.4	26.468	36.135	23.75	1.36	0.407	0.050	0.038	0.035	0.033	0.049	0.056	0.068				
105.3	26.137	36.154	23.87	1.48	0.405	0.051	0.040	0.036	0.034	0.049	0.057	0.059				
110.4	25.958	36.289	23.97	1.54	0.404	0.049	0.044	0.036	0.036	0.049	0.056	0.055				
115.3	25.725	36.185	24.02	1.59	0.402	0.049	0.046	0.039	0.038	0.048	0.055	0.050				
120.3	25.553	36.183	24.07	1.63	0.400	0.051	0.047	0.042	0.039	0.049	0.056	0.052				
125.3	25.313	36.178	24.14	1.63	0.399	0.053	0.046	0.044	0.039	0.051	0.062					
130.3	24.998	36.172	24.23	1.76	0.397	0.056	0.049	0.044	0.040	0.052	0.067					
135.2	24.693	36.142	24.30	2.01	0.398	0.058	0.050	0.044	0.041	0.051	0.067					
140.1	24.539	36.158	24.36	2.11	0.398	0.060	0.051	0.045	0.042	0.051						
145.2	24.379	36.122	24.38	2.17	0.399	0.060	0.050	0.045	0.042	0.051						
150.1	24.047	36.168	24.51	2.18	0.397	0.059	0.049	0.044	0.041	0.051						
155.1	23.894	36.167	24.52	1.84	0.396	0.056	0.046	0.042	0.040	0.049	0.049					
160.1	23.718	36.189	24.57	1.70	0.394	0.055	0.045	0.040	0.039	0.051						
165.0	23.567	36.184	24.61	1.53	0.392	0.053	0.043	0.039	0.038	0.046						
170.0	23.398	36.071	24.64	1.42	0.390	0.052	0.042	0.038	0.037	0.042						
175.0	23.177	36.049	24.68	1.29	0.388	0.052	0.048	0.037	0.036							
180.0	23.089	36.036	24.70	1.25	0.388	0.051	0.039	0.034	0.035							
185.0	22.873	35.998	24.73	1.12	0.385	0.046	0.039	0.035	0.034							
189.9	22.604	35.972	24.79	0.98	0.383	0.044	0.039	0.035	0.033							
194.9	22.467	35.969	24.83	0.78	0.383		0.038	0.034	0.032							
199.8	22.418	35.961	24.84	0.72	0.382		0.038	0.034	0.032							
204.9	22.320	35.981	24.88	0.64	0.388		0.038	0.035	0.032							
209.9	21.782	35.874	24.95	0.61	0.378		0.038	0.035	0.032							
214.9	21.655	35.876	24.98	0.58	0.378		0.041	0.036	0.032							
219.8	21.385	35.786	24.99	0.48	0.376		0.045	0.036	0.032							
224.8	20.944	35.755	25.09	0.40	0.375		0.046	0.039	0.033							
229.7	20.730	35.741	25.14	0.38	0.374		0.047	0.040	0.035							
234.7	20.505	35.712	25.17	0.43	0.374		0.040	0.036								

Spectral Radiometer Data File : DISCO 9 UP CAST.MDAT.PR

page 1

Cast Label : RP-9-01-84 LEG 2 STA 9 15 DEG S 8-MAR-84 1315 L UP CAST

Latitude: 15.0000S Longitude: 150.0000W

Z-ave M	Temp deg C	Sal. ppt	Dens.	Fluor	Beam	Diffuse Attenuation (1/M)										
						410 nm	441 nm	465 nm	488 nm	526 nm	548 nm	568 nm	589 nm	625 nm	671 nm	694 nm
			Clean water value->			0.017	0.015	0.016	0.020	0.048	0.055	0.071	0.107	0.244	0.468	0.608
0.9	29.841	28.348	16.88	0.49	0.814				0.033	0.032						
5.9	30.013	35.539	22.13	0.45	0.413				0.033	0.032						
10.9	29.934	35.541	22.16	0.47	0.416	0.815	0.018	0.021	0.023	0.049	0.056	0.073	0.131	0.382	0.482	0.433
15.9	29.928	35.536	22.16	0.58	0.414	0.814	0.016	0.019	0.021	0.047	0.054	0.071	0.126	0.287	0.324	0.289
20.9	29.916	35.534	22.16	0.53	0.414	0.814	0.015	0.018	0.020	0.045	0.052	0.069	0.123	0.258	0.198	0.133
25.9	29.913	35.540	22.17	0.58	0.414	0.815	0.016	0.018	0.020	0.044	0.051	0.066	0.119	0.188	0.084	
30.8	29.851	35.529	22.18	0.82	0.427	0.817	0.018	0.019	0.021	0.043	0.050	0.065	0.113	0.116	0.022	
35.8	29.655	35.555	22.27	0.98	0.437	0.818	0.019	0.021	0.022	0.044	0.050	0.067	0.106	0.064	0.010	
40.9	29.593	35.557	22.29	0.87	0.438	0.820	0.021	0.022	0.023	0.044	0.051	0.071	0.102		0.019	
45.8	29.583	35.571	22.33	0.83	0.428	0.821	0.022	0.023	0.024	0.045	0.053	0.072	0.097			
50.7	29.360	35.602	22.40	0.75	0.425	0.822	0.022	0.024	0.025	0.045	0.056	0.071	0.098			
55.7	29.062	35.733	22.68	0.68	0.415	0.823	0.023	0.024	0.025	0.045	0.058	0.069	0.082			
60.6	28.658	35.838	22.82	0.77	0.414	0.825	0.024	0.025	0.025	0.046	0.057	0.068	0.075			
65.6	28.151	35.956	23.87	0.95	0.418	0.828	0.026	0.026	0.026	0.049	0.056	0.068	0.078			
70.6	27.925	35.995	23.17	0.98	0.415	0.831	0.028	0.028	0.027	0.051	0.055	0.067	0.065			
75.5	27.687	36.827	23.38	1.04	0.414	0.834	0.030	0.029	0.028	0.050	0.055	0.067	0.059			
80.6	27.321	36.849	23.41	1.14	0.414	0.838	0.033	0.031	0.030	0.048	0.054	0.065	0.051			
85.5	26.979	36.187	23.57	1.18	0.412	0.840	0.035	0.032	0.031	0.048	0.055	0.064	0.043			
90.4	26.832	36.124	23.63	1.23	0.414	0.843	0.037	0.034	0.032	0.049	0.056	0.063				
95.5	26.521	36.168	23.75	1.39	0.412	0.849	0.039	0.035	0.034	0.050	0.057	0.064				
100.4	26.264	36.178	23.84	1.44	0.409	0.853	0.041	0.038	0.035	0.051	0.058	0.065				
105.3	26.001	36.189	23.94	1.52	0.410	0.853	0.044	0.038	0.037	0.051	0.057	0.063				
110.4	25.835	36.201	24.00	1.55	0.407	0.849	0.045	0.039	0.038	0.051	0.057	0.063				
115.3	25.580	36.206	24.08	1.58	0.405	0.848	0.046	0.041	0.039	0.050	0.057	0.059				
120.3	25.372	36.201	24.14	1.62	0.401	0.852	0.047	0.043	0.039	0.052	0.068					
125.3	25.123	36.192	24.21	1.78	0.400	0.856	0.048	0.044	0.041	0.051	0.068					
130.3	24.921	36.177	24.26	1.95	0.402	0.858	0.050	0.045	0.042	0.052	0.059					
135.2	24.568	36.167	24.36	2.01	0.401	0.858	0.050	0.045	0.042	0.051	0.052					
140.1	24.582	36.164	24.38	2.00	0.402	0.859	0.050	0.045	0.042	0.051	0.052					
145.2	24.269	36.136	24.43	1.92	0.401	0.858	0.049	0.044	0.041	0.052						
150.2	23.979	36.123	24.58	1.74	0.397	0.857	0.047	0.042	0.040	0.050						
155.1	23.784	36.112	24.55	1.61	0.395	0.854	-0.044	0.040	0.038	0.049						
160.2	23.679	36.099	24.57	1.58	0.394	0.852	0.042	0.038	0.036	0.046						
165.1	23.549	36.081	24.68	1.36	0.392	0.858	0.048	0.037	0.035	0.049						
170.1	23.392	36.072	24.64	1.23	0.398	0.848	0.039	0.036	0.035							
174.9	23.122	36.039	24.69	1.15	0.386	0.848	0.039	0.036	0.035							
180.1	23.075	36.041	24.71	1.09	0.388	0.848	0.039	0.036	0.035							
185.0	22.834	36.003	24.75	0.89	0.385	0.847	0.039	0.036	0.034							
190.0	22.553	35.977	24.81	0.83	0.383	0.846	0.039	0.036	0.034							
195.0	22.448	35.962	24.83	0.82	0.382	0.847	0.038	0.034	0.033							
199.9	22.408	35.952	24.83	0.73	0.381		0.036	0.034	0.032							
204.9	22.099	35.913	24.89	0.78	0.379		0.035	0.033	0.032							
210.0	21.692	35.863	24.97	0.63	0.377		0.036	0.034	0.032							
214.9	21.555	35.842	24.99	0.59	0.377		0.040	0.035	0.032							
219.8	21.099	35.787	25.07	0.58	0.375		0.041	0.037	0.032							
224.8	20.825	35.762	25.13	0.48	0.374		0.038	0.036	0.032							
229.6	20.577	35.727	25.17	0.45	0.373		0.039	0.037	0.032							
234.7	20.405	35.710	25.20	0.45	0.373		0.039	0.033								

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12 PERSONAL AUTHOR(S) Irene P. DePalma and David F. Reid*							
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19 ABSTRACT (Continue on reverse if necessary and identify by block number) This report is a summary of data collected by the optical oceanography program of the Naval Ocean Research and Development Activity (NORDA) on a north-south transect of the central equatorial Pacific Ocean. Data were collected from 14 stations from the surface to a depth of 2900 meters. Parameters presented here include conductivity, temperature, salinity, transmissometry, fluorometry, chlorophyll and phaeopigments, total suspended matter, particle size, and nutrients (phosphate, silicate, nitrate, and nitrite). Data are reported as vertical profiles (to 250 m), temperature-salinity (t-s) plots, and tables of measured and derived values. Collection and analytical procedures are also described.							
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